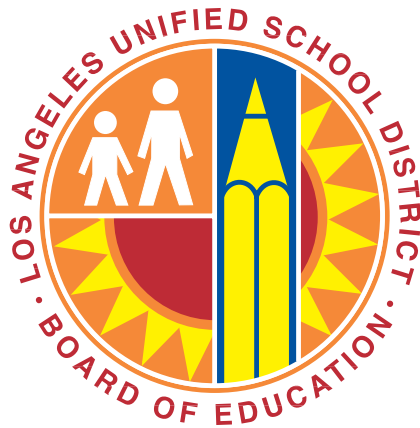


PRELIMINARY ENVIRONMENTAL ASSESSMENT EQUIVALENT REPORT

92nd Street Elementary School
9211 South Grape Street
Los Angeles, California 90002

April 5, 2019

Prepared for:



Los Angeles Unified School District

333 South Beaudry Avenue, 21th Floor
Los Angeles, California 90017

Prepared by:

PINNACLE
ENVIRONMENTAL TECHNOLOGIES
2 Santa Maria
Foothill Ranch, California 92610
949-470-3691

PRELIMINARY ENVIRONMENTAL
ASSESSMENT EQUIVALENT REPORT

92ND STREET ELEMENTARY SCHOOL
9211 SOUTH GRAPE STREET
LOS ANGELES, CALIFORNIA 90002

ENVIRONMENTAL ASSESSMENT FOR COMPREHENSIVE MODERNIZATION
PROJECT

OPINION OF ENVIRONMENTAL PROFESSIONAL

Pinnacle Environmental Technologies has prepared this Preliminary Environmental Assessment Equivalent (PEA-E) Report for the above project area. This assessment was conducted using methods and professional experience consistent with the standard for the industry. The observations, interpretations and recommendations produced by this assessment are based on conditions that exist at the time the study is conducted. These interpretations are based upon Pinnacle's field observations, analytical results and specific field conditions.

Potential Recognized Environmental Conditions were identified at 92nd Street Elementary School by the original Phase I Environmental Site Assessment. This subsequent PEA-E revealed additional evidence of specific recognized environmental conditions in connection with the project site. Based on the results of this assessment, environmental soil mitigation is recommended at this time.

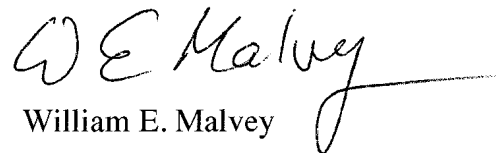
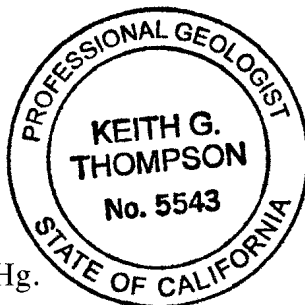
PINNACLE ENVIRONMENTAL TECHNOLOGIES



Keith G. Thompson, P.G., C.Hg.

Principal

California Registered Geologist No. 5543



William E. Malvey

Principal

TABLE OF CONTENTS

Page No.

EXECUTIVE SUMMARY	iv
LIST OF ACRONYMS	vi
1.0 INTRODUCTION	1
2.0 SITE DESCRIPTION	2
2.1 Site Identification Information.....	2
2.2 Site Topography.....	2
2.3 Site Geology and Hydrogeology.....	3
2.4 Nearest Special Study (Alquist-Priolo) Zone	5
2.5 Liquefaction and Landslide Potential	5
2.6 Flooding and Inundation Potential.....	5
3.0 BACKGROUND	6
3.1 Site Setting	6
3.2 Description of Project Area Structures, Roads and Other Improvements	6
3.3 Previous Investigations	9
4.0 APPARENT PROBLEM	10
5.0 ENVIRONMENTAL SETTING	11
5.1 Conceptual Site Model.....	11
5.2 Potential Sources of Contamination.....	12
5.3 Release Mechanisms	12
5.4 Transport Mechanisms.....	12
5.5 Exposure Points	12
5.6 Potential Receptors	13
5.7 Environmental Screening Levels	13
6.0 SAMPLING ACTIVITIES AND RESULTS	14
6.1 Initial Soil Sample Collection	14
6.2 Initial Soil Sample Analytical Methods	16
6.3 Initial Soil Sample Analytical Results	17
6.4 Step-Out Soil Sample Collection	20
6.5 Step-Out Soil Sample Analytical Results	22
6.6 Discussion of Soil Sampling Results	25
6.7 Field Variances	26
6.8 Quality Assurance/Quality Control.....	26
6.9 Investigative-Derived Wastes	27
6.10 Areas of Impacted Soil.....	27

TABLE OF CONTENTS (cont.)

7.0	HUMAN HEALTH SCREENING EVALUATION	29
8.0	ECOLOGICAL SCREENING EVALUATION	30
9.0	COMMUNITY OUTREACH.....	31
10.0	CONCLUSIONS AND RECOMMENDATIONS	32

REFERENCES**TABLES**

Table 1:	Initial Soil Sampling Rationale
Table 2:	Summary of Soil Analyses
Table 3:	Summary of Soil Analytical Results
Table 4:	Summary of Soil Analytical Results – Organochlorine Pesticides
Table 5:	Summary of Soil Analytical Results – Lead and Arsenic
Table 6:	Summary of Soil Analytical Results – Polychlorinated Biphenyls
Table 7:	Summary of Soil Analytical Results – Soluble Lead and Arsenic
Table 8:	Summary of Impacted Soil Volumes
Table 9:	Summary of COPC Detections

FIGURES

Figure 1:	Site Location Map
Figure 2:	Site Photograph
Figure 3:	Initial Boring Location Map
Figure 4:	PB-11 Step-out Boring Location Map
Figure 5:	PB-27 Step-out Boring Location Map
Figure 6:	PB-34 Step-out Boring Location Map
Figure 7:	Recommended Area for Soil Removal – PB-11
Figure 8:	Recommended Area for Soil Removal – PB-27
Figure 9:	Recommended Area for Soil Removal – PB-34

TABLE OF CONTENTS (cont.)

APPENDICES

- Appendix A: Pinnacle General Field Procedures
- Appendix B: Laboratory Reports and Chain-of-Custody Documentation for Initial Soil Samples
- Appendix C: Laboratory Reports and Chain-of-Custody Documentation for Step-Out Soil Samples
- Appendix D: Boring Logs
- Appendix E: Manifests for Drum Disposal
- Appendix F: Public Notice

EXECUTIVE SUMMARY

This report summarizes the field procedures and observations, laboratory analytical procedures and results, and conclusions of a Preliminary Environmental Assessment Equivalent (PEA-E) completed by Pinnacle Environmental Technologies (Pinnacle) for the comprehensive modernization project planned at the 92nd Street Elementary School in Los Angeles, California (the project area).

Based on historical and current land use data collected during a previous Phase I Environmental Site Assessment (ESA), this PEA was conducted in accordance with the PEA-E Workplan (Accord Engineering, July 31, 2017). The workplan included shallow soil sampling and analysis for lead, arsenic, organochlorine pesticides (OCPs), and Polychlorinated Biphenyls (PCBs) in shallow soils within the school campus. Additionally, Total Petroleum Hydrocarbons (TPH) and Volatile Organic Compounds (VOCs) were also locally assessed within the project area. Three phases of step-out soil sample collection were completed during this PEA-E. This sampling consisted of borings intended to assess the lateral extent of chemicals of potential concern (COPCs) identified in the initial borings.

Forty-seven initial soil borings were advanced by hand auger to a planned target depth of 30 inches below ground surface (bgs). Soil samples were collected at depths of 6, 18 and 30 inches from these borings. Each of the soil samples collected from the initial borings was analyzed for lead, arsenic and OCPs with the results of arsenic concentrations found above the environmental screening level of 12 mg/kg at three boring locations (PB-11, PB-27 and PB-34). Forty-five additional step-out borings were advanced to a target depth of 18 or 30 inches bgs to further define the extent of any arsenic affected areas in shallow soil.

A total of 185 soil samples were analyzed for arsenic. Ninety-one percent of the soil samples had reportable levels of arsenic. Fifteen borings reported arsenic at concentrations exceeding the LAUSD screening level of 12 mg/kg. Only one of these fifteen borings had an arsenic concentration above 12 mg/kg at a sampling depth greater than six inches. The highest arsenic concentrations were confined to three particular areas at and surrounding initial borings PB-11, PB-27 and PB-34. Seven soil samples with arsenic concentrations exceeding ten times the Soluble Threshold Limit Concentration (STLC) for arsenic of 5 mg/L were analyzed for soluble arsenic using the STLC Method and the Waste Extraction Test (WET) Method. None of these soil samples contained a soluble arsenic concentration above the arsenic STLC of 5 mg/L.

A total of 146 soil samples were analyzed for lead. Seventy-seven percent of the soil samples had reportable levels of lead. One soil sample had a lead concentration exceeding the LAUSD screening level of 80 mg/kg. This soil sample was also collected from boring PB-34. Six soil samples with lead concentrations exceeding ten times the STLC for lead of 5 mg/L were analyzed for soluble lead using the STLC Method. None of these soil samples contained a soluble lead concentration above the lead STLC of 5 mg/L.

Eleven of the 141 soil samples analyzed for OCPs had at least one detectable OCP. Chlordane, dieldrin, 4,4'-DDT and 4,4'-DDE were the detected OCPs. None of the detectable concentrations of these OCPs exceeded the applicable Regional Screening Level (RSL). No additional OCP analyses were required to delineate vertical or lateral extent of these compounds.

Nine soil samples were analyzed for PCBs. No PCBs were detected in these soil samples.

One soil sample collected at a depth of six inches from a boring located adjacent to a small structure used for the plant manager's equipment storage was analyzed for TPH and VOCs. The sample did not contain detectable concentrations of TPH or VOCs.

Imported fill material was not identified at the project area. Near-surface material is assumed to be scarified and graded local silty to sandy material, without depositional evidence and occasionally incorporating evidence of earlier structures. Saturated conditions were not encountered in any of the boreholes, so no groundwater grab samples were collected.

Pinnacle provides the following recommendations based on the results of this assessment.

- Based on the results of this additional soil sampling and health screening, Pinnacle does not recommend additional investigation for the identified COPCs.
- Based on the findings that an estimated 49.3 cubic yards of arsenic-impacted soil was identified at three boring locations (PB-11, PB-27 and PB-27), a Removal Action Workplan (RAW) should be completed for the removal and disposal of the arsenic impacted soil.
- The excavation and soil removal activities should be completed under LAUSD's Office of Environmental Health and Safety (OEHS) oversight.

LIST OF ACRONYMS

ABBREVIATION	DESCRIPTION
%	percent
A-P Zone	Alquist-Priolo Fault Rupture Hazard Zone
APN	Assessors Parcel Number
ATL	Advanced Technology Laboratories
bgs	below ground surface
Cal EMA	California Emergency Management Agency
CDMG	California Department of Mines and Geology
CHHSL	California Human Health Screening Level
COC	Chain of Custody
COPC	Contaminant of Potential Concern
CSM	Conceptual Site Model
DigAlert	Underground Services Alert of California
DTSC	Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
ERA	Ecological Risk Assessment
ESA	Environmental Site Assessment
ESE	Ecological Screening Evaluations
ESNR	Environmentally Sensitive Natural Resources
HERO	DTSC Office of Human and Ecological Risk
HHRA	Human Health Risk Assessment
HHSE	Human Health Screening Evaluation
kV	kilovolts
LACDPW	Los Angeles County Department of Public Works
LADWP	City of Los Angeles Department of Water and Power
LAUSD	Los Angeles Unified School District
LBP	lead-based paint
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MPR	Multi-purpose Room
MSL	mean sea level
NIFZ	Newport-Inglewood Fault Zone
OCP	Organochlorine Pesticide
OEHS	Office of Environmental Health and Safety
OWTS	On-Site Wastewater Treatment Systems
PCBs	Polychlorinated Biphenyls
PCL	Pacific Coast Locators
PEA-E	Preliminary Environmental Assessment Equivalent
RAW	Removal Action Workplan
REC	Recognized Environmental Condition

LIST OF ACRONYMS (cont.)

ABBREVIATION	DESCRIPTION
RL	Laboratory Reporting Limit
RSL	Regional Screening Level
SCE	Southern California Edison
SCG	Southern California Gas
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbons
TTLC	Total Threshold Limit Concentration
$\mu\text{g/kg}$	micrograms per kilogram
VOCs	Volatile Organic Compounds
WET	Waste Extraction Test

1.0 INTRODUCTION

This report documents the scope of work, field procedures and observations, laboratory methods and results, and conclusions of a Preliminary Environmental Assessment - Equivalent (PEA-E) completed by Pinnacle Environmental Technologies (Pinnacle) for the Comprehensive Modernization Project planned at the 92nd Street Elementary School (the school), 9211 Grape Street, Los Angeles, California (Figures 1 and 2). The Comprehensive Modernization Project at the 92nd Street Elementary School consists of the following activities:

- The demolition of three permanent buildings (two, one-story kindergarten buildings and two-story Classroom Building D with a total size of 10,190 square feet),
- The removal of six portable buildings with a total size of 7,541 square feet,
- The construction of 19 classrooms in two permanent buildings (a two-story kindergarten building and a one-story classroom building) with a total size of 35,129 square feet and,
- Related site upgrades.

This PEA-E was conducted on behalf of the Office of Environmental Health and Safety (OEHS) at LAUSD.

The purpose of this investigation was to investigate and assess potential impacts to soil (if encountered) on the portion of the school intended for new construction (the project area). The scope for this PEA-E was defined using potential recognized environmental conditions (RECs) identified and detailed in a Phase I Environmental Site Assessment Report (ESA) prepared by Accord Engineering, Inc. (Accord), dated July 28, 2017. The information produced during the course of this investigation will be used by LAUSD for potential site mitigation planning and budgetary purposes.

2.0 SITE DESCRIPTION

2.1 Site Identification Information

The 92nd Street Elementary School is located at 9211 South Grape Street, south of the Firestone Park Area of the City of Los Angeles. The Firestone Park Area of Los Angeles is located approximately six miles south of downtown Los Angeles. The school is also bounded by the Avalon Gardens Area to the west, the Hacienda Village Area to the south, and the Nadeau Area to the north.

The Assessor's Parcel Number (APN) for the school is 6046-002-901. The latitude and longitude for the approximate center of the school and the project area as shown on Figure 1 and Figure 2 are as follows:

Latitude - North 33.9518850 degrees
Longitude - West 118.2368490 degrees

The legal information for the school is as follows:

Tract No. – TR 26899
Map Reference – M B 707-41-42
Block – None
Lot – 1
Book - 6046

The 92nd Street Elementary School occupies a elongated, rectangular, residential city block (Figures 1 and 2). The block is bounded by 92nd Street to the north, 95th Street to the south, Grape Street to the east, and Anzac Avenue to the west. This block occupies approximately 6.06 acres (263,610 square feet).

2.2 Site Topography

The school is situated approximately 117 feet above mean sea level and topography of the general area slopes gently to the south-southeast. The school campus is flat with a gradual slope to the south, so any precipitation not percolating into the few landscaped areas travels over paved portions of the campus as sheet flow and is directed to scattered stormwater drains or to offsite drains.

2.3 Site Geology and Hydrogeology

The school is located in the north-central portion of the Los Angeles Basin. The Basin is bounded by the Santa Monica Mountains and the Elysian Hills to the north, the Repetto and Merced Hills to the northeast, the Puente and Coyote Hills to the east, and the Santa Ana Mountains and San Joaquin Hills to the south. The Pacific Ocean is to the west.

Fine-grained surface soils in the vicinity of the school belong to the Chino soil series, which is a poorly-drained, silty loam. This fine-grained alluvium varies laterally with Hanford soils in the western portion of the Los Angeles Basin. Soil belonging to this series has been identified below undisturbed areas in the Los Angeles Basin to a depth of up to 60 inches. The original undisturbed soil horizon below the school extended with little variability to the fine-grained Recent alluvial sediments at depth. This soil was subsequently mixed with broken building materials during school construction.

Near-surface subsoil geologic materials at the school are poorly-indurated, Recent Alluvium (primarily sands and silts) shed from the Santa Monica Mountains and other highlands to the north. This materials was transported primarily by the Los Angeles River. Approximately 170 feet of this material is present below the school. The upper 90-100 feet of this material is undifferentiated finer-grained clays and silts. The bottom 70-80 feet of this material is the coarser-grained Gaspar Aquifer. The Lakewood Formation is present below this Recent material. It consists of fine-grained material (the Bellflower Aquiclude) to a depth of approximately 240 feet below ground surface (bgs), where the top of the Exposition Aquifer has been observed. The school is not within the Central Pressure Area, where shallow groundwater is present under confined conditions.

The nearest fault to the school is the Avalon-Compton segment of the Newport-Inglewood Fault Zone (NIFZ), which is approximately 3.4 miles southwest from the school at its closest point. This fault experienced numerous ruptures during the 1933 magnitude 6.3 Long Beach Earthquake. Though the epicenter for this earthquake was located offshore of Huntington Beach, the area near the school experience significant shaking. Less severe earthquakes with magnitudes from 3.0 to 4.7 have occurred along this fault zone since the Long Beach Earthquake. Two other faults recognized as A-P Zones are located north and east of the school. The Hollywood Fault is located approximately 11 miles to the north. The Whittier Fault is located approximately 14 miles to the east. The northern portion of the Los Angeles Basin is also cut by a set of shallow, northeast dipping thrust faults. The Compton Thrust has been identified in the southwest portion of the basin, while the complex, overlapping

segments of the Puente Hills, Elysian Park and San Vicente Thrust Faults are located below the northeast portion of the basin. The school is located several miles northeast of where the Compton Thrust terminates at depth, and several miles southwest of the approximate shallow origin of one of the segments of the Puente Hills Thrust Fault.

Shallower groundwater levels in the vicinity of the school existed until approximately 50 years ago. The Seismic Safety Element of the Los Angeles County General Plan contains a map showing areas with historic groundwater based on data from 1944 and 1969. According to this map, groundwater below the school was within 30 feet of the surface during this period.

Site investigation and groundwater remediation performed approximately 0.3 miles northwest of the school at 8825 Beach Street has encountered groundwater at relatively shallow depths, from 39 feet to greater than 60 feet below ground surface (bgs). These groundwater levels have been influenced by groundwater extraction and injection activities, but provide a general groundwater depth. Another ongoing groundwater investigation and remediation project performed at a Los Angeles Department of Water and Power facility located at 8627 Fir Avenue, approximately 0.4 miles north of the school, has observed groundwater at a depth of between 42 and 45 feet bgs. The direction of groundwater flow is to the north at both of these facilities. No investigations conducted at the school have provided an accurate depth to the first occurrence of groundwater.

Groundwater well information archived at the Los Angeles County Department of Public Works (LACDPW) was reviewed for general depth to groundwater data. The closest routinely monitored groundwater well, well 1475B, is located 0.4 miles east-southeast of the school. It has a latest depth to groundwater of 136 feet bgs, which results in a water surface elevation of 24 feet below mean sea level (MSL). Well 1475C, located 1,000 feet farther to the east-southeast from the school, has latest depth to groundwater of 124 feet bgs, which results in a water surface elevation of 17 feet below MSL. These wells are not monitoring the shallowest water table aquifer and the depth to water data can not be directly compared to the water level data observed in the nearby groundwater remediation projects.

2.4 Nearest Special Study (Alquist-Priolo) Zone

The school is not located within an Alquist-Priolo Fault-Rupture Hazard Zone (A-P Zone). The nearest A-P Zone to the school is the Avalon-Compton segment of the NIFZ, which is approximately 3.4 miles to the southwest.

2.5 Liquefaction and Landslide Potential

According to the latest California Geological Survey (CDMG) Seismic Hazard Zone Map for the Southgate Quadrangle, soils in the vicinity of the school are potentially liquefiable during seismic events. The 1996 Safety Element of the City of Los Angeles General Plan had previously regarded the soils below this area as liquefiable.

There is no landslide hazard identified on the school or on neighboring properties. The closest landslide hazards are in the Baldwin Hills or in downtown Los Angeles, approximately six miles northwest and north of the school.

2.6 Flooding and Inundation Potential

The closest named or significant water body to the school is the Los Angeles River, a broad, engineered channel for flood control that runs from north to south in the vicinity of the school. It is 3.7 miles east of the school. The elevation at the northeast corner of the project area is approximately 118 feet above MSL.

According to California Federal Flood Insurance Rate Map #06037C, panel 1805F, the school is with Flood Zone X, indicating that the area is in an area of minimal flood hazard. Specifically, it is outside the area with a 0.2 percent (%) annual risk of flooding. The map was last updated on September 26, 2008.

The Safety Element for the Los Angeles County Master Plan shows the school within the area of potential inundation in the event of a local dam failure. The inundation map for the Hansen Dam, produced by the California Emergency Management Agency (Cal EMA), provides more detail regarding this inundation hazard. The school is not within the inundation area for Sepulveda Dam or Encino Dam. The school is not at risk of being flooded by a tsunami.

3.0 BACKGROUND

3.1 Site Setting

The school is located in a residential area and is surrounded by single-family homes. The closest commercial or other land uses is a small store located offsite at the southwest corner of the school. Fifteen sensitive receptors (public buildings, other schools, parks, hospitals, convalescent homes, and churches), including the school, are co-located with, or located, within 0.25 miles of the project area.

1. 92nd Street Elementary School – Subject site
2. Apostolic Assembly – 950 feet north of the school
3. Iglesia De Dios De Evangelio – 125 feet east of the school
4. Los Angeles City Camp – 375 feet east of the school
5. Holy Tabernacle Church of God – 1,100 feet southeast of the school
6. Jordan Downs Recreation Center – 1,100 feet south of the school
7. Tree of Life Baptist Church – 1,000 feet southwest of the school
8. Wesley & Pauline Dickson Fellowship Hall – 1,000 feet southwest of the school
9. Canon Human Services Center – 1,050 feet southwest of the school
10. Bright Star Church of God in Christ – 1,050 feet southwest of the school
11. Bible Revival Church – 100 feet west of school
12. George McDonald Court – 550 feet west of the school
13. Good Faith Missionary Baptist – 1,100 feet west of the school
14. Leon H. Washington Park – 1,150 feet west of the school
15. Shilo Baptist Mission Church – 1,050 feet north-northwest of the school

The closest major highways to the school are Interstate 105, which is located 1.6 miles south of the school, and Interstate 118, which is located 2.6 miles west of the school. Interstate 710 is located 3.9 miles east of the school.

3.2 Description of Project Area Structures, Roads and Other Improvements

The 92nd Street Elementary School is a secured facility that is surrounded by steel fences and gates, and is monitored by a team of security personnel. Portions of the school facility are secured by individual chain-link fences. The primary parking area for the school is at the northeast corner of the campus. It is accessed from the east through two sliding gates on

Grape Street. A second parking lot is located south of the main parking lot and a two-story classroom building. It is accessed through a single sliding gate on Grape Street (Figure 3).

There are 19 primary structures on the school campus (Figure 2). Twelve of these are permanent structures (Figure 3). These include six classroom buildings, an administration building at the northeast corner of the campus, and the West Building located at the northwest corner of the campus. The West Building is the largest and oldest structure at the school. It was built in the early 1930s and is the oldest structure on the campus. Five of the six permanent classroom buildings are single-story structures. A two-story classroom building is located on the east side of the school, immediately north of a parking lot at the center of campus.

A single structure incorporating the cafeteria/kitchen and multi-purpose room (MPR) is located south of the center parking lot. A lunch pavilion is located immediately west of the cafeteria/kitchen/MPR. A small storage building is located on the west side of the campus, west of the lunch pavilion. Power equipment and a small volume of gasoline is kept in the storage building.

There are seven temporary structures on the campus (Figure 3). Five of these are located on the west side of campus, west of the cafeteria/kitchen/MPR. Three of these structures are classrooms, one structure is an attached pair of rest rooms, and the fifth structure is a large storage bin. The two other temporary structures are two small bungalows adjacent to the West Building on the north side of campus.

The West Building and two smaller adjacent temporary buildings are not included within the project area. The project area was determined by LAUSD construction project staff and OEHS based on their plans to modernize the cafeteria/kitchen/MPR, lunch pavilion, and numerous classroom structures with new buildings.

A paved playground for the students is located on the southern third of the school campus. Playground equipment occupies the northeast corner of the playground. Basketball courts are located at the southeast corner of the playground and a set of multipurpose baseball/kickball fields are located in the center and west portions of the playground. A small oval track constructed using a thin pavement of rubberized asphalt on the asphalt pavement is located within the area occupied by the ball fields.

The parking areas and most of the areas between classrooms are asphalt-paved. Arcades connecting the three classrooms on the west side of campus, the kindergarten building located south of the main parking lot, and the main administration building have concrete-paved walkways. The areas between the three classrooms on the west side of campus are also concrete paved. The largest landscaped area on the campus is at the corner of 92nd Street and Grape Street. Other smaller landscaped areas and tree wells have little ground cover other than smaller trees, vines and shrubs. The mature trees on campus did not appear to be distressed.

The campus is flat with a gradual slope to the south, so any precipitation not percolating into the few landscaped areas travels over paved portions of the campus as sheet flow and is directed to scattered stormwater drains or to offsite drains. Shallow concrete culverts located within some of the paved areas also direct runoff to the stormwater drains. It is assumed that these drains lead to a stormwater collection main that bisects the southern half of the campus from the north to the south.

The school is within the Watts/Harbor Primary Sewer Drainage Basin. There is no secondary sewershed for this area. Wastewater from the school is directed to the Terminal Island Water Reclamation Plant in the Harbor Area of the City of Los Angeles. The sewer system is operated by the City of Los Angeles Department of Public Works (LADPW). Two offsite private sanitary sewer or septic systems were identified within 0.5 miles of the school on the April 15, 2013 map of On-Site Wastewater Treatment Systems (OWTS) for Council District 15 produced by the Wastewater Engineering Services Division of the City of Los Angeles Bureau of Sanitation. One was for a multi-family application and one was for residential use. The map did not have sufficient detail to determine if the systems were on the school property. However, they are not expected to impact the proposed school modernization project. Evidence of a septic system was not observed by Pinnacle during the current field investigation.

LADWP supplies power to the school. A set of LADWP transmission towers carrying 127 kilovolts (kV) of power are located in an east to west alignment 400 feet north of the school. None of the current or planned campus structures are within 100 feet of these lines. Power is brought into the campus at the northeast corner of the school, and is routed in the subsurface to a pad-mounted transformer located north of the parking lot. No other high-voltage

(greater than 50 kV) lines operated by either LADWP or Southern California Edison (SCE) are located within 100 feet of the school.

According to the Safety Element of the Los Angeles Master Plan and information available on the National Pipeline Mapping System, a crude oil pipeline operated by Plains Pipeline is located below Alameda Street, 0.4 miles east of the school. An abandoned crude oil pipeline is also located below Alameda Street. An active but unfilled product pipeline is located 0.4 miles west of the school under Graham Avenue. It is operated by Shell Pipeline.

Southern California Gas (SCG)/The Gas Company supplies natural gas to the school and vicinity. An operating 30-inch, high-pressure gas transmission line is located within 100 feet of the school. This line (#18484) is located immediately south of the school below 95th Street. Four-inch gas distribution lines are located adjacent to the school below 92nd Street and Grape Street. A three-inch distribution line is located below Anzac Avenue on the west side of the school.

Water to the school is provided by LADWP. Based on a five-year average of deliveries, approximately 36% of the LADWP supplies have been produced from the Eastern Sierra via the Los Angeles Aqueduct system. Approximately 11% of the supply has been pumped from wells in the San Fernando Valley. Recycled water accounted for 1% of the water delivered to customers over this period. The remainder of the City's supplies (approximately 52%) have been imported from Metropolitan Water District sources such as the Colorado River and Feather River.

3.3 Previous Investigations

Accord produced a Phase I ESA Report for the whole school campus dated July 28, 2017. That assessment did not identify any previously conducted environmental investigations for the school or contiguous property. However, it identified potential Recognized Environmental Conditions (RECs) within the project area that were used to produce the scope of work for PEA-E. Pinnacle used their own observations to augment the RECs produced by Accord.

4.0 APPARENT PROBLEM

The earlier Phase I ESA for the project areas identified the following potential RECs:

- Based on the age of the project area buildings and the presence of earlier buildings, soils may be impacted with lead due to the prior application of lead-based paints (LBP).
- Soils may be impacted with arsenic and Organochlorine Pesticides (OCPs) as a result of possible pesticide application within the project area.
- Potential surface soil impact from any spills or releases of dielectric (cooling) oil containing Polychlorinated Biphenyls (PCBs) in the pad-mounted electrical transformer in the northeast section of the site.

There are no known spills or releases of hazardous substances that have occurred at the project area. Due to the planned demolition and construction activities at the project area, soil disturbances may result in the completion of the potential exposure pathways (ingestion, inhalation, and dermal contact) described in Section 5.0.

5.0 ENVIRONMENTAL SETTING

A description of the Site's general environmental setting (site topography, geology, hydrogeology) is presented in Section 2.0 of this PEA-E Report. This information was used to assess the potential exposure pathways for the Chemicals of Potential Concern (COPCs) identified in this PEA-E Report.

5.1 Conceptual Site Model

Pinnacle prepared a preliminary Conceptual Site Model (CSM) to use with this PEA-E and within a potential future Human Health Screening Evaluation (HHSE). The COPCs identified in Sections 6 and 7 were utilized to prepare a CSM that identified potential receptors, exposure media, and exposure pathways within the project area.

An exposure pathway describes the route a chemical, in a variety of forms, may take from a source to an exposure point where a receptor can interact with the chemical. A complete exposure pathway includes five components.

- A primary source(s) of contamination (e.g., storage tanks, the land application of a pesticide)
- A secondary source(s) of contamination (e.g., COPC vapors, contaminated dust, subsurface soil contaminated by the migration of a release substance)
- Release mechanisms (e.g., direct contact of various media, wind-blown dust, stormwater erosion, leaching from various media)
- Transport media (e.g., surface soil, air, stormwater runoff)
- Receptors (e.g., persons or biota).

Typical exposure pathways include incidental ingestion of soil, dermal contact with soils, and inhalation of contaminated fugitive dust. Since volatile chemicals were not identified as significant COPCs within the designated project area, the CSM did not consider inhalation of chemical vapors in outdoor and indoor air. The CSM described the pathways by which receptors may have been and might be exposed to the COPCs within the project area. A summary of the site-specific CSM criteria for the project area is provided below.

5.2 Potential Sources of Contamination

Based on research conducted during Accord's Phase I Environmental Assessment, the potential sources that might result in a release of hazardous substances to the environment included the weathering of LBP (from pre-1979 structures), and lead, arsenic and OCPs as a result of possible pesticide application within the project area. One location at the entrance to a small storage building may have had a local release/spillage of fuels.

5.3 Release Mechanisms

Weathering, scraping, and chipping of potential LBP surfaces may have caused lead to be released and accumulate in soil around past and current structures. The use of lead arsenate and arsenic trioxide as a termiticide and in general insecticides has been known to result in significant concentrations of these metals and OCPs in soils around structures with wood components built prior to January 1, 1989. Considering the age of existing structures within the project area and the initiation of agricultural land uses prior to the construction of the school, lead, arsenic and OCPs may have been released to near-surface soils in the project area.

5.4 Transport Mechanisms

Once released to soil, heavy metals and OCPs are relatively immobile. These substances are not easily soluble, and will not typically leach into surface water or migrate to groundwater. They will likely adsorb to soil particles, and they will not volatilize and migrate as vapors. Evidence of older surface releases or applications of these COPCs that occurred prior to school development are less likely to be discovered in significant concentrations and over broad areas due to the ground surface grading conducted for school construction.

5.5 Exposure Points

The primary exposure point currently and during future construction is expected to be dermal contact with surface soil with elevated COPCs. However, exposure could also occur through inhalation of dust, or incidental ingestion of dust.

5.6 Potential Receptors

Current receptors are primarily students and staff at the school. The potential future receptors will also include workers involved in the demolition of current structures and construction of the new buildings.

5.7 Environmental Screening Levels

The screening level currently used for arsenic at LAUSD school sites is 12 milligrams per kilogram (mg/kg), which is the California Department of Toxic Substances Control's (DTSC's) upper bound estimate (95th percentile) for background concentrations in Southern California (DTSC, 2008). LAUSD currently uses the California Human Health Screening Level (CHHSL) of 80 mg/kg when considering lead concentrations in soil for additional assessment. OCPs were compared to the most recent available United States Environmental Protection Agency (EPA) Region 9 Regional Screening Levels (RSLs) (EPA, 2015). These concentrations are consistent with those provided by the DTSC Office of Human and Ecological Risk (HERO) in *HERO HHRA Note Number: 3* (DTSC, 2016).

6.0 SAMPLING ACTIVITIES AND RESULTS

Pinnacle conducted soil sampling and analysis to assess whether past activities within and immediately adjacent to the project area resulted in environmental impairments. Soil vapor was not included in this scope of work. Shallow groundwater was not encountered during the assessment.

6.1 Initial Soil Sample Collection

Accord prepared a workplan for a PEA-E dated July 31, 2017. This preliminary scope of work provided by OEHS included a sampling protocol with 47 initial boring locations based on proximity to current project area structures. Soil samples were to be collected at 6, 18 and 30 inches below the surface. An initial analytical program was provided by OEHS for bidding purposes. It consisted of the following analyses.

- Total Lead (EPA Method 6010B) – 155
- Lead - Soluble Threshold Limit Concentration (STLC) Determination - 0
- Lead - Toxicity Characteristic Leaching Procedure (TCLP) - 0
- Arsenic (EPA Method 6020) - 155
- TPH (EPA Method 8015M) - 0
- VOCs (EPA Method 8260B/5035) - 0
- California Code of Regulations, Title 22 CAM-17 Metals (EPA Method 6010B/7471A) - 0
- OCPs (EPA Method 8018A) – 155
- Polychlorinated Biphenyls (PCBs) – 10 percent of samples, 15

After meeting at the project area, Pinnacle and OEHS modified the locations of several soil borings, but maintained the original number of initial borings. Pinnacle marked these final locations in white paint. A map illustrating the sampling locations was subsequently produced for performing initial fieldwork (Figure 3). Since the Accord workplan was not significantly changed, Pinnacle did not prepare a modified workplan. However, Pinnacle prepared a sampling summary that is provided in this report (Table 1)

The surrounding community was notified regarding the field work. A description of public notification efforts is provided in Section 9.0.

Pinnacle delineated the corners of the project area boundaries and each boring location on the morning of January 30, 2018, as required by Underground Services Alert of Southern California (DigAlert). DigAlert was notified on March 22, 2018, regarding the intended subsurface work and issued number A180811045 to identify the intended subsurface work and to notify effected member locaters. None of the sampling locations needed to be moved based on the information generated by the DigAlert locaters, though AT&T marked a service line in the northern parking lot that was near a sampling location.

Pinnacle met Pacific Coast Locaters (PCL) at the school on March 26 and March 27, 2018 to perform a survey of subsurface utilities at the previously marked boring locations. At Pinnacle's request, PCL marked the utilities in the vicinity of the marked boring locations in yellow grease pencil rather than colored paints. Several sampling locations were moved a distance of less than five feet to avoid utilities identified by PCL.

The soil sampling procedure used for the investigation followed suggested procedures for soil sampling and analysis for non-volatile compounds used by OEHS contractors in the past. These procedures have been approved on projects overseen by DTSC. A soil sample was collected from drummed material in accordance with EPA Method 5035 for VOCs and TPH analyses for use in profiling the material for future disposal. General Pinnacle sampling procedures are included in Appendix A of this report.

Soil samples were collected from the 47 initial soil boring locations (PB-1 through PB-47) on March 27 and March 28, 2018 by Strongarm Environmental Field Services, Inc. (Strongarm). Strongarm field technicians used stainless steel hand auger equipment for advancing the boring, and a pry bar when surface material was difficult to penetrate with the hand auger. Surface asphalt or concrete was cored as needed prior to soil sampling. Loose material that was observed falling into the boring was removed prior to sampling.

The shallowest soil sample from each boring was collected within the first 6 inches of soil. Subsequent samples were collected at depths of 18 and 30 inches bgs. Auger refusal was not encountered at any boring location. Soil collected from the auger head was transferred to new, 4-ounce glass jars provided by the laboratory. Disposable gloves worn during sampling were discarded after sampling each borehole. The auger heads were decontaminated between boreholes using a tap water/alconox wash, and a tap water rinse.

The filled jars were labeled and placed in a cooler with blue ice. The following unique information was provided on each sample label.

- Project area name
- Borehole number (PB-1 through PB-47)
- Sample number (with depth)
- Sampling date and time

A chain-of-custody (COC) document was completed as samples were collected. The samples were delivered to the analytical laboratory on the day of collection.

Boreholes were backfilled with a concrete/bentonite slurry to a depth of between 3 and 5 inches bgs. The remaining void was patched with concrete to match the surrounding surface. The concrete was dyed in areas surrounded by asphalt pavement. The remaining soil cuttings, asphalt cores and decon water were placed in drums for later disposal.

6.2 Initial Soil Sample Analytical Methods

Soil analyses were performed by Advanced Technology Laboratories, Inc. (ATL), a California state-certified hazardous waste laboratory. Each of the three samples from the initial 47 borings, a total of 141 samples, was analyzed for the following constituents, using a standard five-day turnaround time.

- Total Lead - EPA Method 6010B
- Arsenic - EPA Method 6010B
- OCPs - EPA Method 8081A

Eighteen of the samples from six borings were selected on a random basis, or their proximity to transformers, for analysis for the following constituents.

- PCBs – EPA Method 8082

An additional sample was collected from the drum of cuttings for analysis of VOCs using EPA Method 8260B, Full-Scan TPH using EPA Method 8015C, CAM-17 Metals using EPA Method 6010B/7471A, OCPs using EPA Method 8081A and PCBs using EPA Method 8082. An additional sample was collected from the drum of decon water for analysis of VOCs using EPA Method 8260B, Full-Scan TPH using EPA Method 8015C, and CAM-17 Metals using EPA Method 6010B/7471A. The analytical results were used to characterize the drummed soil and water for disposal. Table 2 is a compilation of the analyses performed on the soil samples from each boring.

6.3 Initial Soil Sample Analytical Results

Table 3 is a summary of the analytical results for the soil samples discussed in this subsection and the step-out boring analyses discussed in subsection 6.4.

Organochlorine Pesticides

All of the 141 samples collected from the initial soil borings were analyzed for OCPs. Eleven of the analyzed samples had one detectable OCP. One sample, PB-6-6", had four detectable OCPs. One sample, PB-47-6", had three detectable OCPs. Three samples, PB-36-18", PB-43-30", and PB-46-6" had two detectable OCPs. The remainder of the samples with detectable OCPs had only one detectable OCP.

4,4'-DDT was the most frequently detected OCP. It was detected in eight samples at concentrations ranging from 2.2 to 20 micrograms per kilogram ($\mu\text{g/kg}$). The variations in concentrations of 4,4'-DDT did not coincide with depth. Chlordane was detected in five samples at concentrations ranging from 11 to 100 $\mu\text{g/kg}$. 4,4'-DDE was detected in four samples at concentrations ranging from 2.8 to 44 $\mu\text{g/kg}$. Dieldrin was detected in two samples at concentrations of 2.2 and 9.4 $\mu\text{g/kg}$.

The soil samples with detectable OCPs were located across the project area. None of the locations with shallow detectable OCPs defined a larger area of impacted soil. The locations with detectable OCPs did not correlate with any specific surface structures or depressions in the unpaved ground surface. The variety of depths for OCP occurrences suggests mixing of shallow soils where OCPs were applied with underlying soils, and that the application predated construction of the school.

The maximum concentration of the OCPs detected in the soil samples did not exceed the residential EPA Regional Screening Level for 4,4'-DDT (1,900 $\mu\text{g/kg}$), 4,4'-DDE (2,000 $\mu\text{g/kg}$), technical chlordane (1,700 $\mu\text{g/kg}$) and dieldrin (34 $\mu\text{g/kg}$). Analysis of additional soil samples was not required to delineate the vertical or horizontal extent of OCPs in the initial borings (Table 4).

The material in the soil drums was analyzed for OCPs. No OCPs were detected in the cuttings contained in the soil drums.

Lead, Soluble Lead

Each of the 141 soil samples from the 47 initial borings were analyzed for total lead using EPA Method 6010B. Thirty-one of the soil samples did not have detectable lead. The occurrence of detectable lead decreased with depth. A total of 45 (of the 47) initial soil samples collected at a depth of six inches had detectable lead. A total of 38 initial soil samples collected at 18 inches contained detectable lead. A total of 25 initial soil samples collected at 30 inches contained detectable lead. Lead results from the 45 soil samples collected at six inches ranged from 2.3 mg/kg to 84 mg/kg. Lead results from the 38 soil samples collected at six inches ranged from 1.2 mg/kg to 33 mg/kg. Lead results from the 25 soil samples collected at six inches ranged from 1.4 mg/kg to 44 mg/kg.

One of the analyzed soil samples had a total lead result above the residential CHHSL of 80 mg/kg. Sample PB-34-6" had a lead concentration of 84 mg/kg. The next highest detectable lead concentration of 62 mg/kg was detected in sample PB-37-6" (Table 5). Three soil samples had a lead concentration of 50 to 59 mg/kg: PB-8-6" (50 mg/kg), PB-28-6" (54 mg/kg), and PB-30-6" (58 mg/kg). These analytical results indicate that the highest concentrations of lead consistently occurred at the shallowest sampling depth.

Boring PB-34 was the only initial boring that produced a total lead result above the residential CHHSL of 80 mg/kg. The soil samples collected at 18 and 30 inches from boring PB-34 had lead results of 1.6 mg/kg or less, which provided a vertical delineation of elevated shallow lead at this location (Table 5). Additional step-out soil borings were required to provide lateral delineation of the elevated lead. The locations and results from those borings are discussed in Section 6.4.

In addition to sample PB-34-6", five other initial soil samples had a total lead concentration above 50 mg/kg and less than 80 mg/kg. Each was collected at a depth of six inches. These lead concentrations exceeded ten times the STLC for lead of 5 mg/L, which indicates whether a material may be a California Hazardous Waste under the toxicity characteristic. Additional analytical information was required to define it as such. Each of these samples was analyzed for leachable lead using the Waste Extraction Test (WET) Method. None of the soil samples had a leachable lead result exceeding the STLC for lead of 5 mg/L.

Arsenic, Soluble Arsenic

Each of the 141 soil samples from the 47 initial borings were analyzed for arsenic using EPA Method 6010B. Twelve of these soil samples did not have detectable arsenic. The occurrence of detectable arsenic decreased with depth. All of the 47 initial soil samples collected at a depth of six inches had detectable arsenic. A total of 42 initial soil samples collected at 18 inches contained detectable arsenic. A total of 41 initial soil samples collected at 30 inches contained detectable arsenic.

Three of the initial soil samples had an arsenic concentration above 12 mg/kg, which is the DTSC upper bound (95th percentile) estimate for background arsenic concentrations in Southern California (Chernoff, G., et al, 2008). These samples had arsenic concentrations of 100 mg/kg (PB-11-6”), 32 mg/kg (PB-27-6”) and 14 mg/kg (PB-34-6”). The soil samples collected at 18 and 30 inches from borings PB-11, PB-27 and PB-34 had arsenic results of 2.9 mg/kg or less, which provided a vertical delineation of elevated shallow arsenic at these locations (Table 5). Additional step-out soil borings were required to provide lateral delineation of the elevated arsenic. The locations and results from those borings are discussed in Section 6.4.

One initial soil sample, PB-11-6”, had a total arsenic concentration above 50 mg/kg. Concentrations above 50 mg/kg exceed ten times the STLC for arsenic of 5 mg/L, which indicates whether a material may be a California Hazardous Waste under the toxicity characteristic. Additional analytical information is then required to define it as such. The sample was analyzed for leachable arsenic using the Waste Extraction Test (WET) Method and using the Toxic Characteristic Leaching Procedure (TCLP) Method. The soil sample did not have a leachable arsenic result using either method that exceeded the STLC for arsenic of 5 mg/L.

Polychlorinated Biphenyls (Aroclors)

Eighteen soil samples from six borings were analyzed for PCBs using EPA Method 8082. None of the samples had reportable concentrations of PCBs. Based on these results, no additional analyses of the initial samples were required to assess the presence of these compounds within the project area (Table 6).

The material in the soil drums was analyzed for PCBs. No PCBs were detected in the cuttings contained in the soil drums.

Total Petroleum Hydrocarbons, Volatile Organic Compounds, Title 22 Metals

None of the samples from the initial soil borings were analyzed for TPH, VOCs or the full set of Title 22 Metals. The sample collected from the soil drums was analyzed for VOCs using EPA Method 8260B, Full-Scan TPH using EPA Method 8015m and the Title 22 Metals. No VOCs or TPH was identified in the sample. The concentrations of the Title 22 Metals in this sample were lower than the respective TTLCs and a concentration equivalent to ten times the respective STLCs.

6.4 Step-Out Soil Sample Collection

A set of step-out borings was advanced based on the results of the initial boring analyses. The step-out boring locations were selected by OEHS and Pinnacle. The borings were required to define the lateral extent of elevated lead and/or arsenic, based on the LAUSD Screening Levels. They were centered on three initial sampling locations: PB-11, PB-27 and PB-34 (Figure 3). Arsenic concentrations exceeded the Screening Level of 12 mg/kg at each of these three locations. The lead concentration Screening Level of 80 mg/kg was only exceeded at boring PB-34.

The first set of step-out locations were selected to surround each of these initial borings. They were placed at the cardinal directions with the initial boring at the approximate center. Most of the step-out locations were placed three feet from the respective initial boring, though some were placed at slightly different locations due to nearby utilities. They were labeled to link them to the original initial location (i.e., PB-11-A, B, C, and D), with the “A” location placed at the north and the other locations placed consecutively in a clockwise fashion.

An additional soil boring (PB-48) was advanced at the base of the concrete ramp to the storage building (building number 12 on Figure 3). The boring was advanced to a depth of 30 inches bgs. Soil samples were collected at 6, 18 and 30 inches from this boring. The shallowest soil sample was analyzed for TPH using EPA Method 8015m, VOCs using EPA Method 8206B, OCPs using EPA Method 8081A, arsenic using EPA Method 6020 and lead using EPA Method 6010B.

A second complete set of lateral step-out locations was required beyond the first set of step-out borings at boring PB-11 (Figure 4). They were placed approximately three feet from the first set of step-out borings, at the same cardinal directions. Step-out locations were only

required to the north and south at boring PB-27 (Figure 5). No additional step-out borings were required at boring PB-34 (Figure 6). The second set of step-out borings were labeled using the same nomenclature, but with a second letter (i.e., PB-11-AA, BB, CC and DD).

A third set of lateral step-out locations were required at both PB-11 and PB-27. This set was located in a grid pattern with approximate 10-foot separations. They were numbered beginning with the last boring advanced to provide areal coverage of the school. Borings PB-49 to PB-56 were advanced to delineate the extent of elevated arsenic north and south of initial boring PB-27. Borings PB-57 to PB-73 were advanced to determine the lateral extent of arsenic surrounding initial boring PB-11. The samples that were collected closest to the previous sampling locations were analyzed first to determine lateral extent of arsenic. The shallowest samples from these borings were analyzed first.

The first set of step-out soil borings were marked with chalk on May 15, 2018. DigAlert was notified on that date regarding the additional subsurface work. Pinnacle received new DigAlert ticket number A181351623 to advance these borings. PCL performed line locating at these boring locations on May 18, 2018. The soil sampling was performed by Strongarm on May 19, 2018, using the same methods used to conduct initial soil sampling.

The second set of step-out soil borings were marked with chalk on August 10, 2018. DigAlert was notified on that date regarding the additional subsurface work. Pinnacle renewed the earlier DigAlert ticket number A181351623 to perform the sampling. PCL performed line locating at these boring locations on August 10, 2018. The soil sampling was performed by Strongarm on August 13, 2018, using the same methods used to conduct initial soil sampling.

The third and final set of step-out soil borings were marked with chalk on September 12, 2018. DigAlert was notified on that date regarding the additional subsurface work. Pinnacle received new DigAlert ticket number A182560427 on September 13, 2018 to advance these borings. PCL performed line locating at these boring locations on September 17, 2018. The soil sampling was performed by Strongarm on September 18, 2018, using the same methods used to conduct initial soil sampling.

6.5 Step-Out Soil Sample Analytical Results

45 step-out soil borings were advanced in three stages for arsenic delineation. Soil samples from 27 of these borings were required to delineate the lateral extent of arsenic and lead above LAUSD Action Levels. A total of 36 soil samples from 27 of these borings were analyzed. All but 6 of these 36 soil samples were collected at a depth of six inches.

Four soil borings were advanced surrounding initial boring PB-34. Three of the borings were in an area with asphalt pavement. One boring was advanced under a concrete slab, in an adjacent arcade (a covered walkway). The six-inch soil samples were analyzed first to assess whether lateral extent was determined. The arsenic results from the four step-out samples surrounding PB-34 were: 1.4 mg/kg (PB-34-A-6"), below the RL (PB-34-B-6"), 1.6 mg/kg (PB-34-C-6"), and 1.6 mg/kg (PB-34-D-6"). Since each of these results was less than the arsenic screening level of 12 mg/kg, no additional soil analyses were required to delineate vertical or horizontal extent of arsenic in this area of concern (Table 5, Appendix B).

The six-inch sample from initial boring PB-34 also contained a total lead concentration that exceeded the screening level of 80 mg/kg. No other initial soil sample exceeded the lead screening level. In response to this result, each of the four samples advanced to delineate arsenic at PB-34 were also analyzed for lead. The lead results from the six-inch soil samples were: 10 mg/kg (PB-34-A-6"), 7.2 mg/kg (PB-34-B-6"), 9.2 mg/kg (PB-34-C-6"), and 33 mg/kg (PB-34-D-6"). Since each of these results was less than the lead screening level of 80 mg/kg, no additional soil analyses were required to delineate vertical or horizontal extent of lead at this location (Table 5, Appendix B).

The step-out sampling at initial boring PB-27 was performed in similar surroundings to those at boring PB-34. Three of the four step-out borings were in asphalt and the sample to the west was collected below a concrete slab in an adjacent arcade with a classroom building to the west. The arsenic results from the four six-inch step-out samples surrounding PB-27 were: 16 mg/kg (PB-27-A-6"), 2.4 mg/kg (PB-27-B-6"), 21 mg/kg (PB-27-C-6"), and less than the RL (PB-27-D-6"). Since the results from the eastern (PB-27-B-6") and western (PB-27-D-6") borings were less than the arsenic screening level of 12 mg/kg, no additional soil analyses were required in this direction to delineate vertical or horizontal extent of arsenic. The samples collected at 18 inches from borings PB-27-A and PB-27-C were analyzed to determine the vertical extent of arsenic about the screening level. The results from the two 18-inch samples were: 1.5 mg/kg (PB-27-A-18") and 8.0 mg/kg (PB-27-C-18") (Table 5, Appendix C). Since each of these results was less than the lead screening level of

12 mg/kg, no additional soil analyses were required to delineate vertical extent of arsenic in this area of concern. However, additional borings were required to delineate lateral extent to the north and south at a depth of six inches.

The second set of step-out soil borings at initial boring PB-27 included borings north (PB-27-AA) and south (PB-27-CC) of the initial boring. The arsenic results at a depth of six inches from the two step-out borings surrounding PB-27 were: 59 mg/kg (PB-27-AA-6"), 91 mg/kg (PB-27-CC-6"). The 18-inch samples from these borings were also analyzed to assess the vertical extent of arsenic. The arsenic results from a depth of six inches at the two step-out samples surrounding PB-27 were: 1.7 mg/kg (PB-27-AA-18") and 1.9 mg/kg (PB-27-CC-18"). Since each of these results from the 18-inch samples was less than the lead screening level of 12 mg/kg, no additional soil analyses were required to delineate vertical extent of arsenic. However, additional borings were required to delineate lateral extent of arsenic at a depth of six inches to the north and south.

Since the step-out distance of three to four feet was not providing the lateral delineation desired, it was decided by OEHS and Pinnacle to advance a grid of borings with a wider separation. The borings were advanced to a depth of 18 inches. The samples would be analyzed as needed to define the lateral extent of arsenic. Grids of four borings were advanced to the north and south of the previous sampling locations at initial boring PB-27. One six-inch sample (PB-51-6") was analyzed from the boring advanced directly north of boring PB-27-AA and one six-inch sample (PB-53-6") was analyzed from the boring advanced directly south of boring PB-27-CC. Sample PB-51-6" had an arsenic concentration of 2.6 mg/kg and sample PB-53-6" had an arsenic concentration of 1.5 mg/kg. Since each of these results from the six-inch samples was less than the lead screening level of 12 mg/kg, no additional soil analyses were required to delineate vertical or horizontal extent of arsenic at this area of concern.

The step-out sampling routine performed at initial boring PB-11 was begun with orthogonal sampling at a distance of three to four feet from the initial boring. The arsenic results from the four step-out samples surrounding PB-11 were: 20 mg/kg (PB-11-A-6"), 53 mg/kg (PB-11-B-6"), 13 mg/kg (PB-11-C-6"), and 22 mg/kg (PB-11-D-6"). None of the soil samples collected at a depth of 18 inches from these borings had arsenic results over the arsenic screening level of 12 mg/kg. Since each of the results in the samples collected at a depth of six inches was greater than 12 mg/kg, additional soil analyses were required in each direction to delineate the horizontal extent of arsenic.

The second set of step-out soil borings advanced at boring PB-11 included borings located at each cardinal direction except to the south. A ramp to the classroom building south of boring PB-11 resulted in this boring (PB-11-CC) being moved to the southwest from the previous step-out boring. The second set of step-out borings was located approximately four feet farther from each previous step-out boring except for boring PB-11-AA, which was moved 7 feet to the north to avoid a utility trench that was located immediately north of boring PB-11-A. The arsenic results at a depth of six inches from the second set of four step-out borings surrounding PB-11 were: 7.3 mg/kg (PB-11-AA-6"), 61 mg/kg (PB-11-BB-6"), 120 mg/kg (PB-11-CC-6") and 120 mg/kg (PB-11-DD-6"). Three of these results from the six-inch samples were greater than the lead screening level of 12 mg/kg. They provided sufficient delineation at the six-inch depth in the north direction only. The 18-inch samples from these four borings were also analyzed to assess the vertical extent of arsenic. The arsenic results from a depth of 18 inches at the four step-out samples surrounding PB-11 were: less than the RL (PB-11-AA-18"), 11 mg/kg (PB-11-BB-18"), less than the RL (PB-11-CC-18") and 18 mg/kg (PB-11-DD-18"). One of these results from the 18-inch samples was slightly greater than the lead screening level of 12 mg/kg. Therefore, the maximum depth of arsenic at this location is regarded as 30 inches. No additional soil analyses from this set of step-out samples were required to delineate vertical extent of arsenic. However, additional borings were required to delineate lateral extent of arsenic at a depth of six inches to the east and west.

A wider grid of sample locations was advanced to finally delineate the extent of arsenic in shallow soil in the area of initial boring PB-11. Proximal step-out samples collected at a depth of 6 inches were selected first for arsenic analysis. Boring PB-71, advanced to delineate the arsenic to the west, had an arsenic concentration of 35 mg/kg in the six-inch sample and 2.4 mg/kg in the 18-inch sample. The six-inch sample had an arsenic concentration above the screening level of 12 mg/kg, and did not provide lateral delineation. Boring PB-72, which was advanced farther to the west, had an arsenic concentration of 6.3 mg/kg in the six-inch sample and a concentration less than the reporting limit in the 18-inch sample. This boring provided the lateral delineation of the arsenic.

Three borings were advanced south of borings PB-11-CC, PB-71 and PB-72 to provide delineation of the arsenic to the south. A classroom building was located immediately south of these borings. Boring PB-68 had an arsenic concentration of 7.2 mg/kg in the six-inch sample and a concentration less than the reporting limit in the 18-inch sample. Boring PB-69 had an arsenic concentration of 1.2 mg/kg in the six-inch sample. The 18-inch sample from boring PB-69 was not analyzed. Boring PB-70 had an arsenic concentration of 11 mg/kg in

the six-inch sample. The 18-inch sample from boring PB-70 was not analyzed. The results of these three borings provide sufficient lateral delineation of arsenic to the south.

One boring (PB-64) was advanced northeast of borings PB-11 and PB-11-AA to provide delineation of the arsenic in that direction. Sample PB-64-6" had an arsenic concentration of 1.2 mg/kg. Sample PB-64-18" had an arsenic concentration of 2.6 mg/kg. Neither of these results were greater than the lead screening level of 12 mg/kg. They provide sufficient lateral delineation of arsenic to the northeast.

One boring (PB-61) was advanced east of boring PB-11-BB to provide delineation of the arsenic in that direction. Sample PB-59-6" had an arsenic concentration of 11 mg/kg. The 18-inch sample from boring PB-59 was not analyzed. This result provides sufficient lateral delineation of arsenic to the east.

Table 5 is a compilation of the initial and step-out arsenic and lead data. Appendix B is the laboratory analytical reports for the initial soil samples. Appendix C is the laboratory analytical reports for the step-out soil samples.

6.6 Discussion of Soil Sampling Results

All of the hand-augered boreholes were advanced through interbedded silts, silty sands and fine sands with no detectable odors. Small bits of foreign material were observed in some of the borings, primarily in the 6- and 18-inch soil samples. The shallower soils were likely mingled with older building material during grading for original school construction. Some borings were advanced in areas with no base, while up to five inches of gravelly sand base was identified at other locations. Logs for the initial borings are provided in Appendix D.

None of the soil samples collected during initial and step-out sampling had arsenic levels exceeding the TTLC for arsenic of 500 mg/kg. Seven soil samples had an arsenic concentration greater than 50 mg/kg, which is ten times the STLC for arsenic of 5 mg/L. They had arsenic concentrations ranging from 53 to 120 mg/kg (Table 5). They were analyzed for soluble arsenic using the STLC Method and the WET Method. None of the samples had a soluble arsenic concentration above 0.69 mg/L. Based on this result, none of soil sampled at the Site was characterized as hazardous based on arsenic results (Table 7).

None of the initial or step-out soil samples had a lead level above the lead TTLC of 1,000 mg/kg. Six soil samples had a lead concentration greater than 50 mg/kg, which is ten times

the STLC for lead of 5.0 mg/L. They had lead concentrations ranging from 50 to 84 mg/kg (Table 5). They were analyzed for soluble lead using the STLC Method. None of the samples had a soluble lead concentration above 4.4 mg/L. Based on this result, none of soil sampled at the Site was characterized as hazardous based on lead results (Table 7).

6.7 Field Variances

The shallow soil sampling and analysis program conducted for this PEA-E for the 92nd Street Elementary School followed the PEA-E Workplan (Accord, 2017b) and direction from LAUSD OEHS personnel. The variances from the PEA-E Workplan are the following:

- Pinnacle recommended adding an additional boring to the sampling program as a result of observing oil stains on the pavement in front of the storage shed (Building 12) in the west-central section of the Site. Soil samples were collected from this boring for TPH, VOCs, and Title 22 metals analysis.
- A total of 45 step-out borings were advanced to define the lateral and vertical extent of chemicals identified as COPCs.

6.8 Quality Assurance/Quality Control

Pinnacle completed the following Quality Assurance/Quality Control (QA/QC) procedures during this PEA to ensure data integrity:

- Field quality control measures included the use of clean, disposable nitrile gloves while collecting and handling individual soil samples, decontamination of all non-disposable sampling equipment before and after each use, and adherence to strict sample collection, labeling, and preservation procedures during sample collection.
- All samples collected during the investigation were preserved and analyzed within the specified holding times for the individual analyses.
- All samples were transferred to the laboratory in accordance with chain of custody procedures, and were subject to the laboratory's standard QA/QC procedures, including the use of method blanks, surrogate recoveries, matrix spike samples, laboratory control samples, and duplicate samples.

- Matrix spike duplicate analyses were performed for each primary analyte and methodology to evaluate statistical precision. The results for these duplicate soil samples were checked to determine whether the percent recovery for each analyte was within required limits. All results were within these limits and no additional analyses were performed based on the duplicate results. The duplicate results are presented in the Quality Control section at the back of each laboratory report provided in the Appendices.
- Appropriate laboratory detection limits were employed for each chemical constituent to allow comparison to applicable screening levels.

Upon completion of the investigation, all data was reviewed to confirm that they met the data quality objectives for precision, accuracy, representativeness, completeness and comparability. Based on review of the collected during this investigation, it is Pinnacle's opinion that all data collected meets data quality objectives commonly used on PEA projects under DTSC oversight.

6.9 Investigative-Derived Waste

Two drums of cuttings and asphalt cores and one drum of decontamination water were produced during initial and step-out soil sampling. At the request of the plant manager, the drums were temporarily placed in the southwest corner of the central parking lot, adjacent to a dumpster enclosure. A sample from the first soil drums was analyzed for TPH, VOCs, OCPs and Title 22 Metals. These analyses were used to characterize the soil as non-hazardous. A sample from the drum of decontamination water was analyzed for TPH, VOCs and Title 22 Metals. These drums were removed from the project area on August 14, 2018 by Belshire Environmental and transported to the Soil Safe of California facility in Adelanto, California. A second drum was subsequently filled with cuttings from step-out sampling. This material was characterized using the earlier soil analyses. It was removed from the project area on December 21, 2018 by Belshire Environmental and transported to the Soil Safe of California facility in Adelanto, California. The manifests for the drum disposal are included in Appendix E of this report.

6.10 Areas of Impacted Soil

Lead and/or arsenic concentrations in soil exceed their respective screening levels (see Section 5.7 – Environmental Screening Levels) for residential land uses at three sampling locations: PB-11, PB-27 and PB-34. An estimated 35.2 cubic yards (in place) of soil is

present above these screening levels at these locations. These areas are depicted in Figures 7, 8 and 9.

Using a bulk factor of 140%, an estimated surface volume of 49.3 cubic yards of material will be transported from the project area under this recommended scenario. Based on an estimated density for moist, silty sand of 2,800 pounds per cubic yard, this volume of soil would weight approximately 66.5 tons. The impacted soil volume for each initial boring location is provided in Table 8.

The analytical results generated during this PEA-E indicate that the soil removed from the recommended locations may be transported as a non-hazardous waste. Since each location has previous sample analyses to define vertical and lateral extent, no additional confirmation sampling at the excavation areas should be required after removal of the material. Analytical results generated during the PEA-E should be sufficient to characterize the soil for disposal. However, additional sampling and analysis of the transported material may be required, depending on the final destination and volume to be transported.

7.0 HUMAN HEALTH SCREENING EVALUATION

A CSM was included with this report that identified the potential receptors (residential), the exposure media (soil), and the exposure pathways (dermal, inhalation of outdoor air, vapors and dust, and potential ingestion) for the COPCs within the school and future project area boundaries.

The COPCs for this PEA were determined by comparing detected concentrations of arsenic, lead, OCPs, PCBs, VOCs and/or TPH to applicable environmental screening levels to determine if any detected chemical needs to be further evaluated through a human health risk process. Table 9 summarizes the chemicals detected during this assessment and the associated screening levels for each chemical. Some of the identified chemicals are based on estimated concentrations and they are represented by “J” flags.

From the comparison provided in Table 9, only lead and arsenic are considered COPCs for this PEA-E and a screening human health risk assessment will not be conducted.

8.0 ECOLOGICAL SCREENING EVALUATION

Ecological Screening Evaluations (ESEs) are conducted to determine whether an Ecological Risk Assessment (ERA) or eventual remedial actions are required in environmentally sensitive natural resources (ESNR) associated with contaminated sites, and to provide the means to determine ecological risk-based remediation goals. ESNRs are defined as environmentally sensitive areas on or adjacent to contaminated sites. More specifically, an ESE calculates risk factors for non-domesticated terrestrial and aquatic plants and animals, but can also include domesticated species, such as livestock.

An ecological risk evaluation was not deemed necessary, or conducted, for the project area because the 92nd Street Elementary School is located in a fully-developed urban setting, is occupied and surrounded predominately by residential building structures, and does not maintain natural resources required to support wildlife habitats.

9.0 COMMUNITY OUTREACH

The 92nd Street Elementary School is surrounded by a residential neighborhood consisting primarily of single-family homes. The students, staff and surrounding community were notified regarding the planned fieldwork. The Community Relations Group at LAUSD provided a general notification that was edited by the OEHS Project Manager and Pinnacle to describe the work to be conducted at the project area. The Community Relations Group at LAUSD and Pinnacle provided a spanish translation of the final notification. The following groups were provided with a copy of the notification printed on blue paper.

- Surrounding Residences/Businesses (880 total) – Mailed on March 6, 2018, to those on a list generated by the LAUSD Community Relations Group.
- School Teachers and Staff – Distributed 50 copies to staff on March 5, 2018.
- Line-of-Sight Addresses (50 total) – Distributed to line-of-sight addresses on March 5, 2018.
- Posted Notices – Placed at visible locations on fences and walls surrounding the project area.

Additional copies of the notification were also left for review in the Main Office at the school. A copy of the notice is provided as Appendix F.

10.0 CONCLUSIONS AND RECOMMENDATIONS

Pinnacle has completed the following work at the project area. The scope and findings of the assessment are summarized below.

- Forty-seven initial soil borings were advanced by hand auger to a planned target depth of 30 inches bgs. Soil samples were collected at depths of 6, 18 and 30 inches from these borings. Forty-five additional step-out borings were advanced to collect soil samples at depths of 6, 18 and 30 inches. Each of these borings reached their target depth. All of the borings reached a depth necessary to delineate vertical extent of the COPCs. Each of the soil samples collected from the initial borings were analyzed for lead, arsenic and OCPs.
- Saturated conditions were not encountered in any of the boreholes, so no groundwater grab samples were collected.
- A total of 179 soil samples were analyzed for arsenic. Ninety-three percent of the soil samples had reportable levels of arsenic. Fifteen borings reported arsenic at concentrations exceeding the LAUSD screening level of 12 mg/kg. Only one of these fifteen borings had an arsenic concentration above 12 mg/kg at a depth greater than six inches. The highest arsenic concentrations were confined to three particular areas at and surrounding initial borings PB-11, PB-27 and PB-34.
- A total of 147 soil samples were analyzed for lead. Seventy-seven percent of the soil samples had reportable levels of lead. One soil sample collected at a depth of six inches had a lead concentration exceeding the LAUSD screening level of 80 mg/kg. This soil sample was also collected from initial boring PB-34.
- Eleven of the 147 soil samples analyzed for OCPs had at least one detectable OCP. The majority of these soil samples were collected at a depth of six inches. Chlordane was detected in five soil samples at concentrations ranging from 11 to 100 $\mu\text{g/kg}$. Dieldrin was detected in two samples at concentrations of 2.2 and 9.4 $\mu\text{g/kg}$. 4,4'-DDT was identified in eight samples at concentrations ranging from 2.2 to 20 $\mu\text{g/kg}$. 4,4'-DDE was detected in four samples at concentrations ranging from 2.8 to 44 $\mu\text{g/kg}$. None of the detectable concentrations of OCPs exceeded the applicable RSL. No additional OCP analyses were required to delineate vertical or lateral extent.

- Eighteen soil samples collected from six borings were analyzed for PCBs. No PCBs were detected in these soil samples.
- One soil sample collected at a depth of six inches from an area used for gasoline and power equipment storage was analyzed for TPH and VOCs. The sample did not contain detectable concentrations of TPH or VOCs.
- Imported fill was not identified at the site. The ground surface is most likely scarified and graded local silt and silty sand, without depositional evidence and occasionally incorporating bits of construction debris from earlier structures.
- Six soil samples had lead concentrations greater than ten times the STLC for lead of 5 mg/L. These samples analyzed for soluble lead using the STLC Method. The maximum soluble lead concentration was 4.4 mg/L, so none of the samples had a soluble lead concentration exceeding the lead STLC of 5 mg/L. Seven soil samples had an arsenic concentration greater than ten times the STLC for arsenic of 5 mg/L. They were analyzed for soluble arsenic using the STLC Method and the WET Method. The maximum soluble arsenic concentration was 0.69 mg/L, so none of the soil samples had a soluble arsenic concentration exceeding the arsenic STLC of 5 mg/L.
- Although the LAUSD screening levels for lead and arsenic were exceeded at several locations, the analytical results for soluble lead and arsenic at these locations indicate that these soils are non-hazardous.
- The estimated volume of arsenic impacted soil is 49.3 cubic yards from three (3) separate areas (PB-11, PB-27, and PB-34). Soil analyses indicate that the arsenic impacted soil is profiled as non-hazardous waste. The arsenic impacted areas are identified in Figures 7, 8 and 9.

Pinnacle provides the following recommendations based of the results of this assessment.

- Based on the results of this additional soil sampling and health screening, Pinnacle does not recommend additional investigation for the identified COPCs.
- Based on the findings that arsenic impacted soil was identified at three locations (PB-11, PB-27 and PB-34) with a total impacted soil volume of 49.3 cubic yards, a Removal Action Workplan (RAW) should be completed for the removal and disposal of the arsenic impacted soil.

- The excavation and soil removal activities should be completed under LAUSD's Office of Environmental Health and Safety (OEHS) oversight.

REFERENCES

Accord Engineering, Inc., July 28, 2017, *Phase I Environmental Site Assessment, Proposed Modernization at the 92nd Street Elementary School, 9211 South Grape Street, Los Angeles, California 90002*, 40 pp.

Accord Engineering, Inc., July 31, 2017, *Workplan for a Preliminary Environmental Assessment Equivalent, Proposed Modernization at the 92nd Street Elementary School, 9211 South Grape Street, Los Angeles, California 90002*, 8 pp.

California Code of Regulations, Title 22, Chapter 11, Article 3 (i) and (iii).

California Division of Mines and Geology, 1975, *San Fernando, California, Earthquake of 9 February 1971*, Bulletin 196.

California Division of Mines and Geology, 1995, *The Northridge, California, Earthquake of 17 January 1994*, Special Publication 116.

California Division of Mines and Geology, *Seismic Hazard Zone Map*, South Gate, 1998.

California Division of Mines and Geology, *Seismic Hazard Zone Report for the South Gate 7.5-Minute Quadrangle, Los Angeles County, California*, 1998.

California Environmental Protection Agency, Department of Toxic Substance Control, February, 1997, *Selecting Inorganic Constituents as Chemicals of Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities, Final Policy*.

California Environmental Protection Agency, Department of Toxic Substances Control, January 16, 2009, *Arsenic Strategies: Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals*.

California Environmental Protection Agency, Department of Toxic Substances Control, July, 2015, *Advisory – Active Soil Gas Investigations*.

California Office of Environmental Health Hazard Assessment (OEHHA), *Revised California Human Health Screening Levels for Lead*, September 2009.

California Office of Environmental Health Hazard Assessment (OEHHA), *Soil Screening Numbers – Updated Tables*, September 23, 2010.

REFERENCES (cont.)

- Chernoff, G., W. Bosan and D. Oudiz, March, 2008, *Determination of a Southern California Regional Background Arsenic Concentration in Soil*, California Environmental Protection Agency, Department of Toxic Substance Control, 5 pp.
- City of Los Angeles, Department of City Planning, Zoning Information and Map Access System (ZIMAS).
- City of Los Angeles, Department of Public Works, Bureau of Sanitation, *Sewer System Manangement Plan*, February 2015.
- City of Los Angeles, Department of Public Works, Bureau of Sanitation, *Onsite Wastewater Treatment Systems (map)*, April 15, 2013.
- City of Los Angeles, Department of Water and Power, 2010 Urban Water Management Plan, final certification May 3, 2011.
- Fero Engineering, January 15, 2013, *Semi-Annual Groundwater Monitoring Results, Second Monitoring Event 2012, Tampa Center*, 54 pp.
- Hart, E. W., 1985, (Revised 1988) *Fault-Rupture Hazard Zones in California*, CDMG Special Publication 42, 20 pp.
- Kearney Foundation of Soil Science, 1996, *Background Concentrations of Trace and Major Elements in California Soils*.
- National Center for Environmental Assessment, 1996, Cited in USEPA's *Region 9 Preliminary Remediation Goals (PRGs)*, San Francisco, CA.
- Sanitation Districts of Los Angeles County, *Sampling Frequencies and Contamination Concentration Limits for the Sanitation Districts' Soil Acceptance Program*, DOC# 2070074.
- Sanitation Districts of Los Angeles County, January 6, 2015, *Simplified Dirt Acceptance Procedures at the Puente Hills, Calabasas and School Canyon Landfills*, DOC# 3174055.
- Teaf, C.M., et al, 2010, "Arsenic Cleanup Criteria for Soils in the US and Abroad: Comparing Guidelines and Understanding Consistencies," *Proceedings of the Annual Conference on Soils, Sediments, Water and Energy*, Volume 15, Article 10.

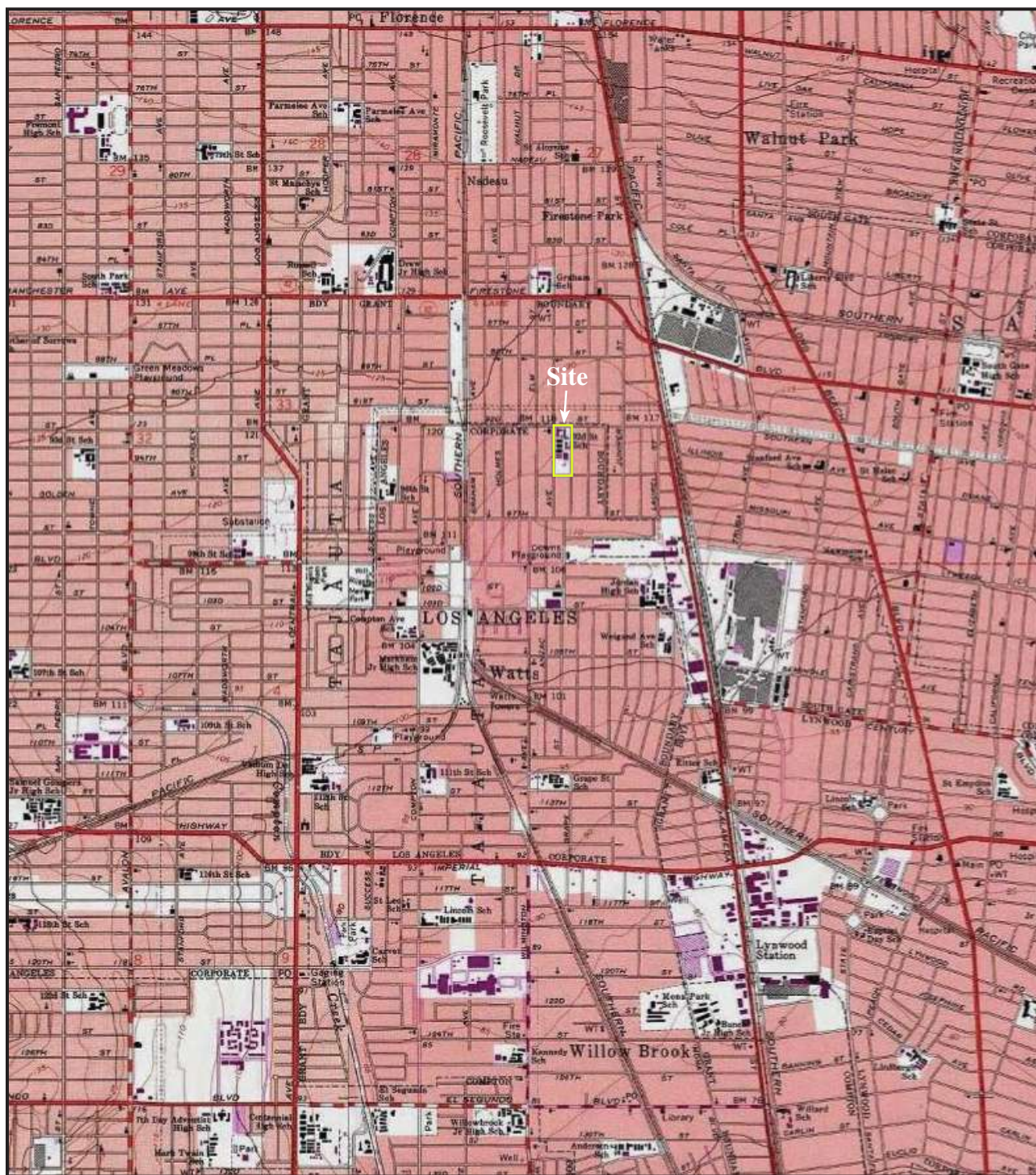
REFERENCES (cont.)

United States Department of Agriculture, 2017, *Supplement to the Soil Survey of Los Angeles County, California, Southeastern Part*, 68 pp.

United States Environmental Protection Agency, 1999, *U.S. EPA Region IX Preliminary Remediation Goals*.

United States Environmental Protection Agency, October 14, 2015, *Screening Tools for Chemical Contaminants – RSL Calculator*.

FIGURES



Base Map: USGS 7.5 Minute Topo Sheets,
Southgate, 2015



SCALE (miles)



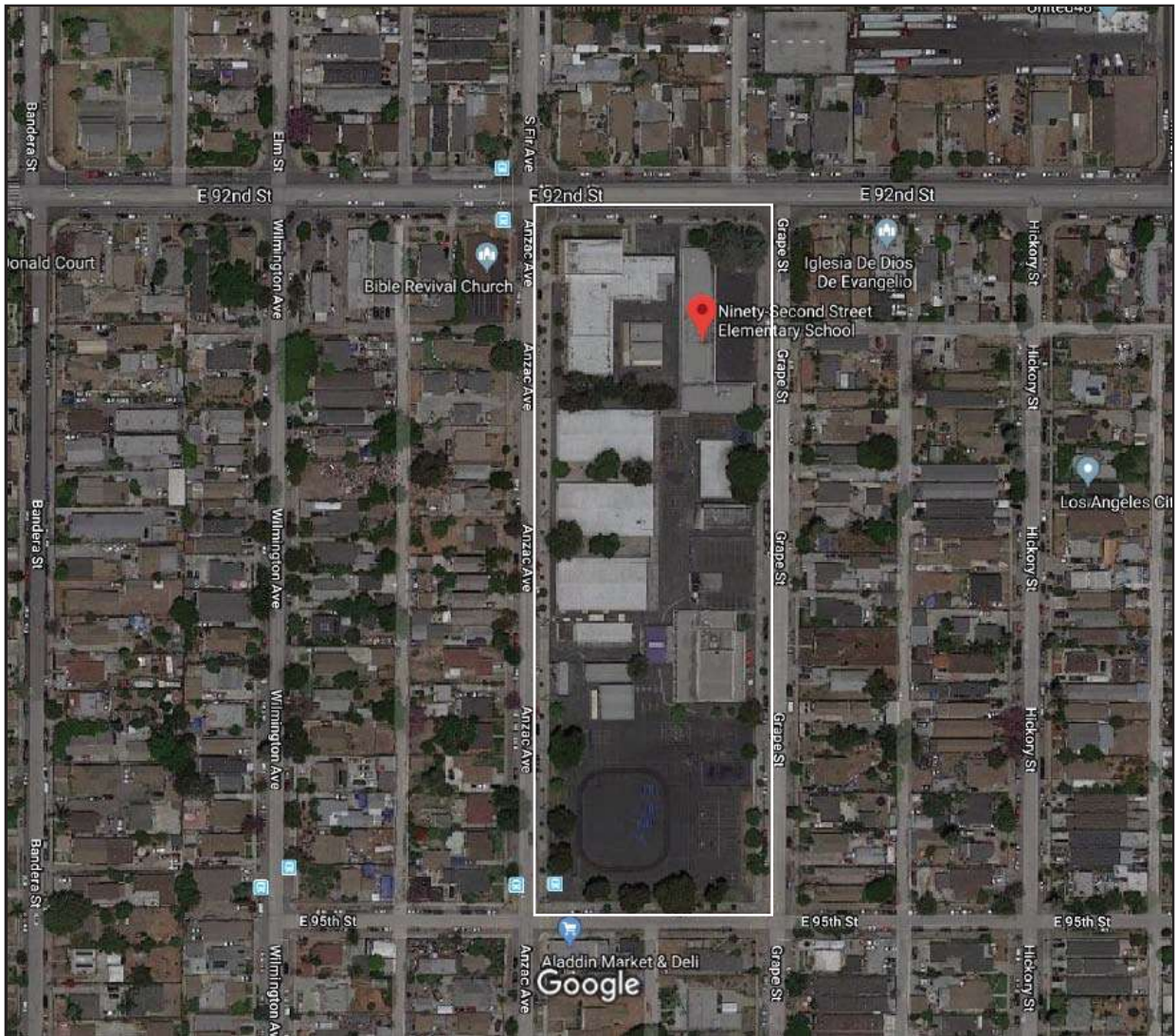
PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA 92610
Tel: (949) 470-3691 • Fax: (949) 595-0459

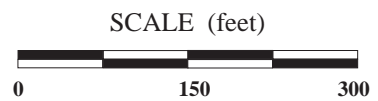
92nd St. Elementary School
9211 Grape Street
Los Angeles, CA

Site
Location
Map

Figure
1



Ref: Google Maps

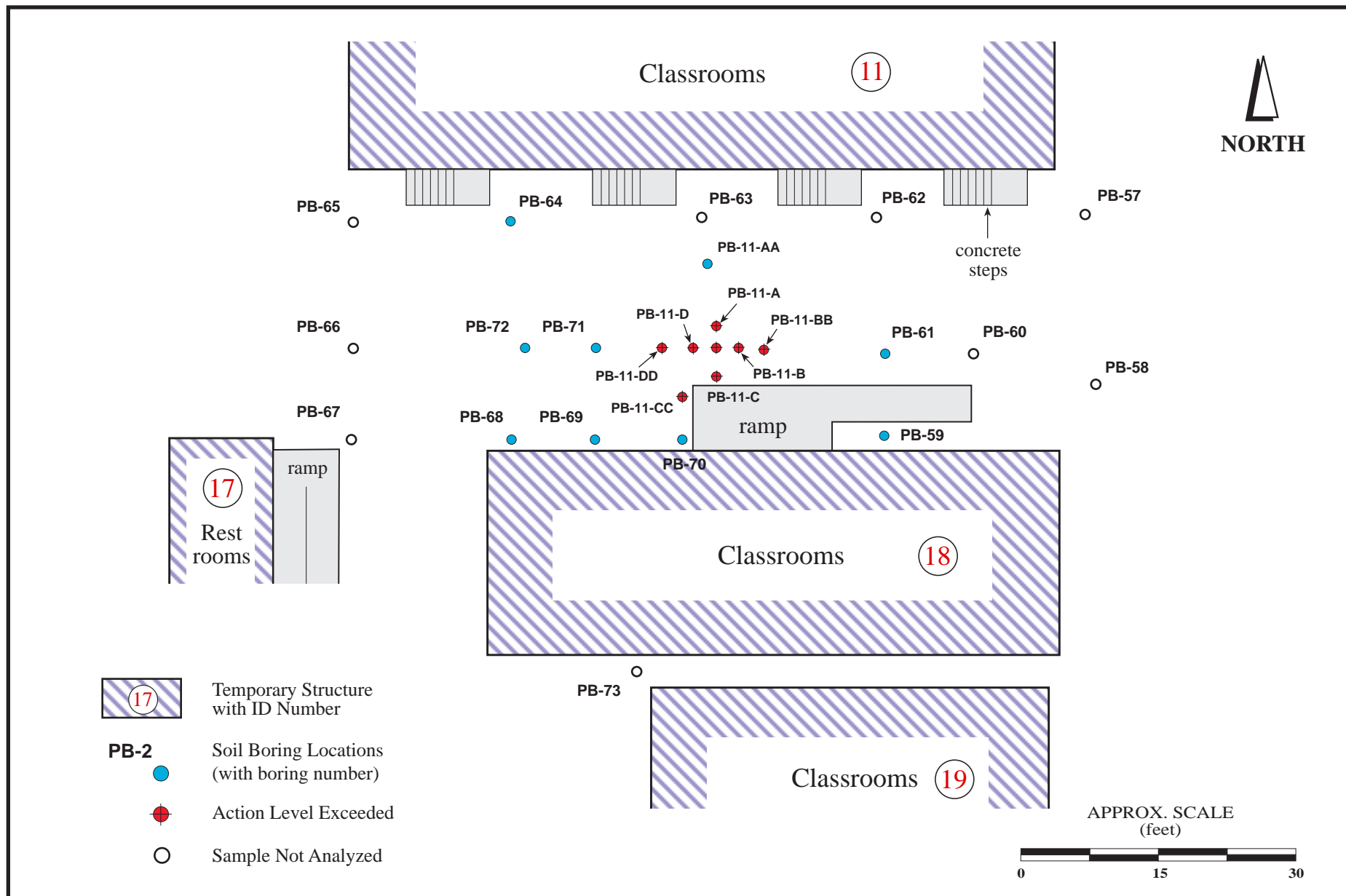


PINNACLE
ENVIRONMENTAL TECHNOLOGIES
#2 Santa Maria, Foothill Ranch, CA 92610
Tel: (949) 470-3691 • Fax: (949) 595-0459

92nd St. Elementary School
9211 Grape Street
Los Angeles, CA

**Site
Photograph**

**Figure
2**

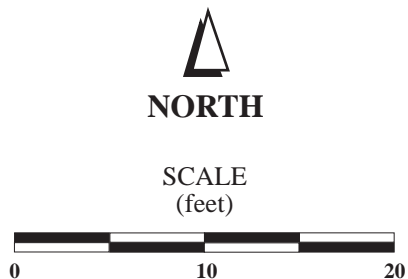
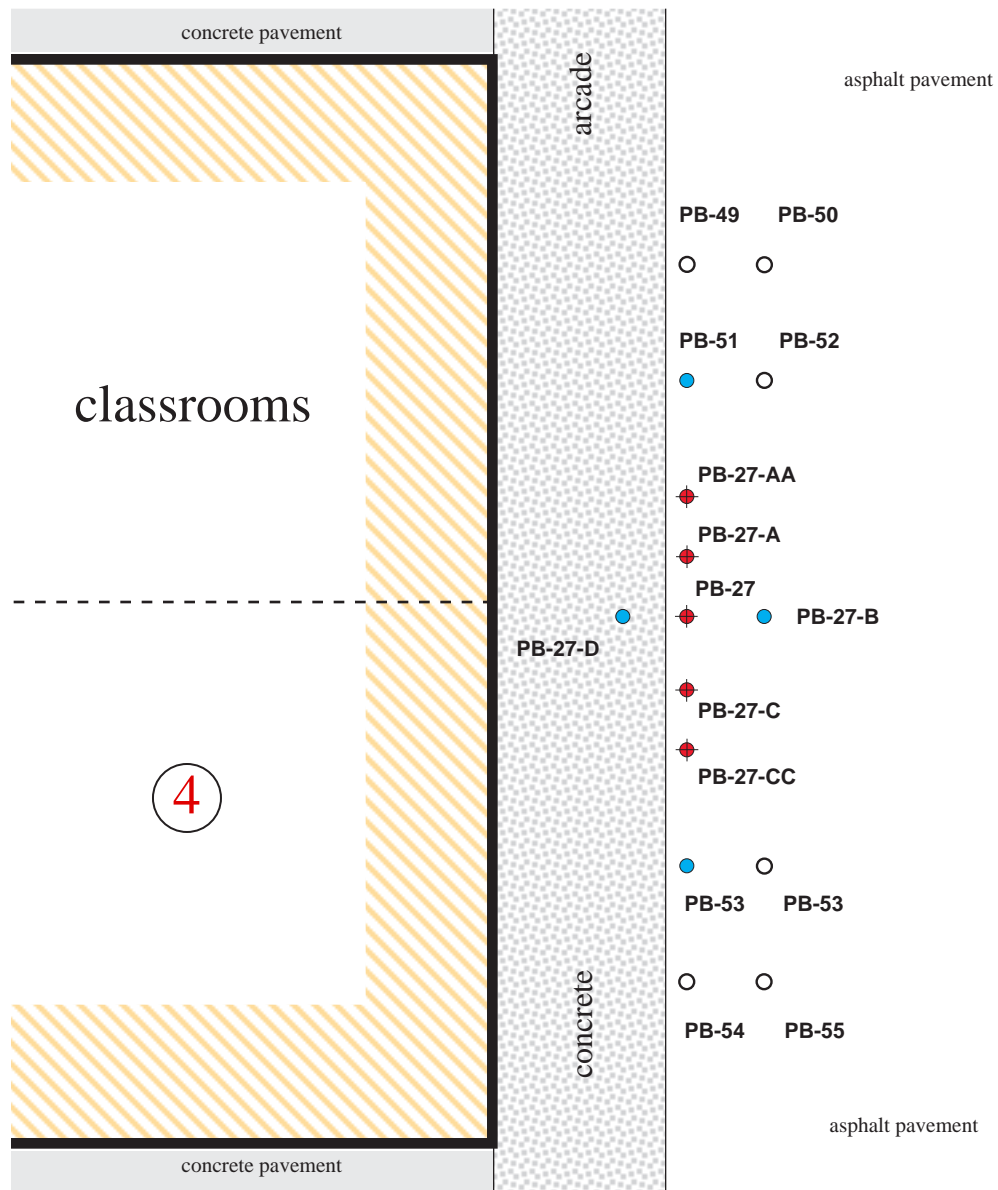


PINNACLE
ENVIRONMENTAL TECHNOLOGIES
#2 Santa Maria, Foothill Ranch, CA 92610
Tel: (949) 470-3691 Fax: (949) 595-0459

92nd Street Elementary School
9211 Grape Street
Los Angeles, California

PB-11
Stepout Boring
Location Map

Figure
4



Permanent Structure
with ID Number

PB-2



Soil Boring Locations
(with boring number)



Action Level Exceeded



Sample Not Analyzed



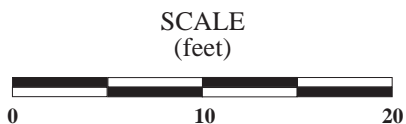
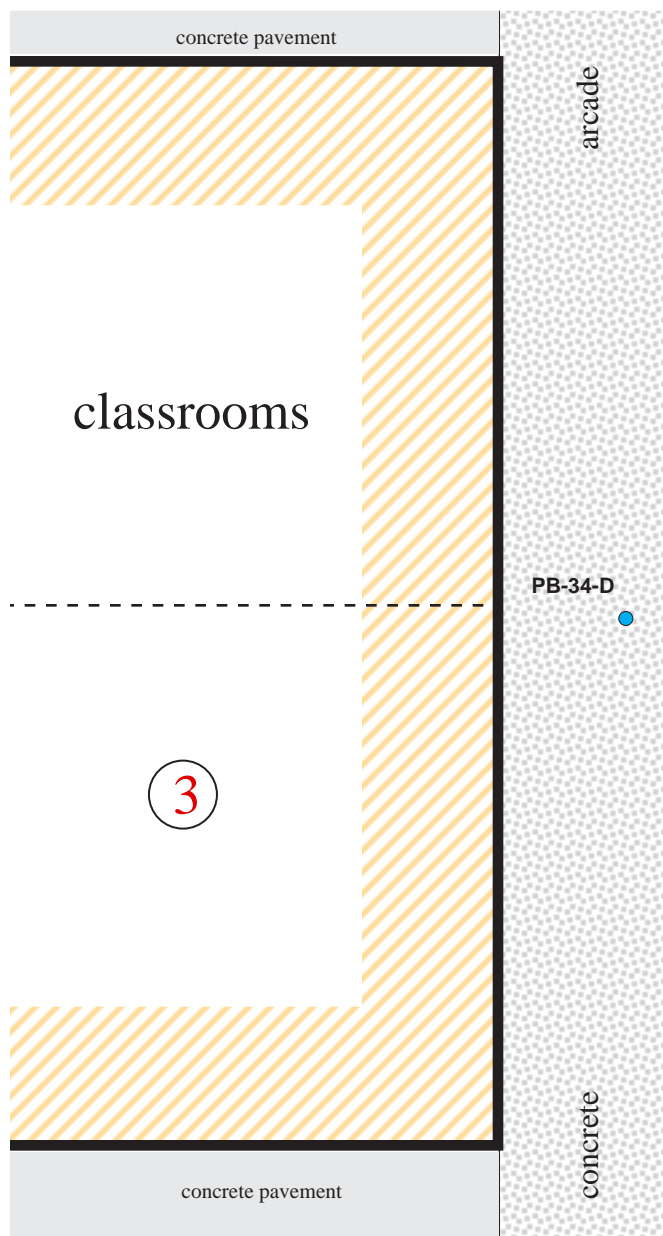
PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA 92610
Tel: (949) 470-3691 • Fax: (949) 595-0459

92nd Street Elementary School
9211 Grape Street
Los Angeles, CA

PB-27
Stepout Boring
Location Map

Figure
5



Permanent Structure
with ID Number

PB-2

Soil Boring Locations
(with boring number)



Action Level Exceeded



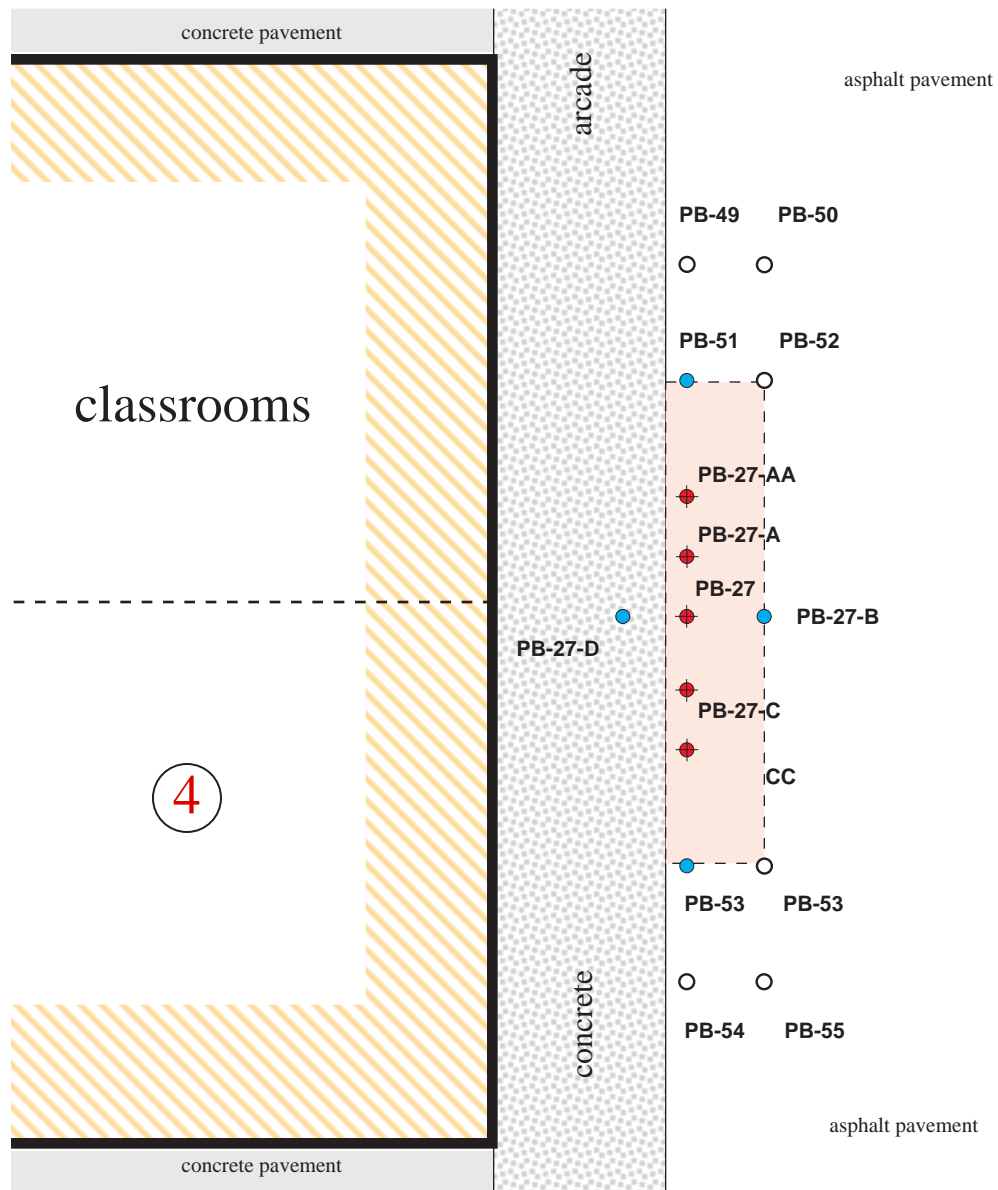
PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA 92610
Tel: (949) 470-3691 • Fax: (949) 595-0459

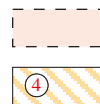
92nd Street Elementary School
9211 Grape Street
Los Angeles, CA

PB-34
Stepout Boring
Location Map

Figure
6



SCALE
(feet)



Area of Soil Removal to a Depth of 18 Inches

Permanent Structure with ID Number

PB-2



Soil Boring Locations (with boring number)



Action Level Exceeded



Sample Not Analyzed



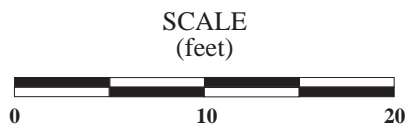
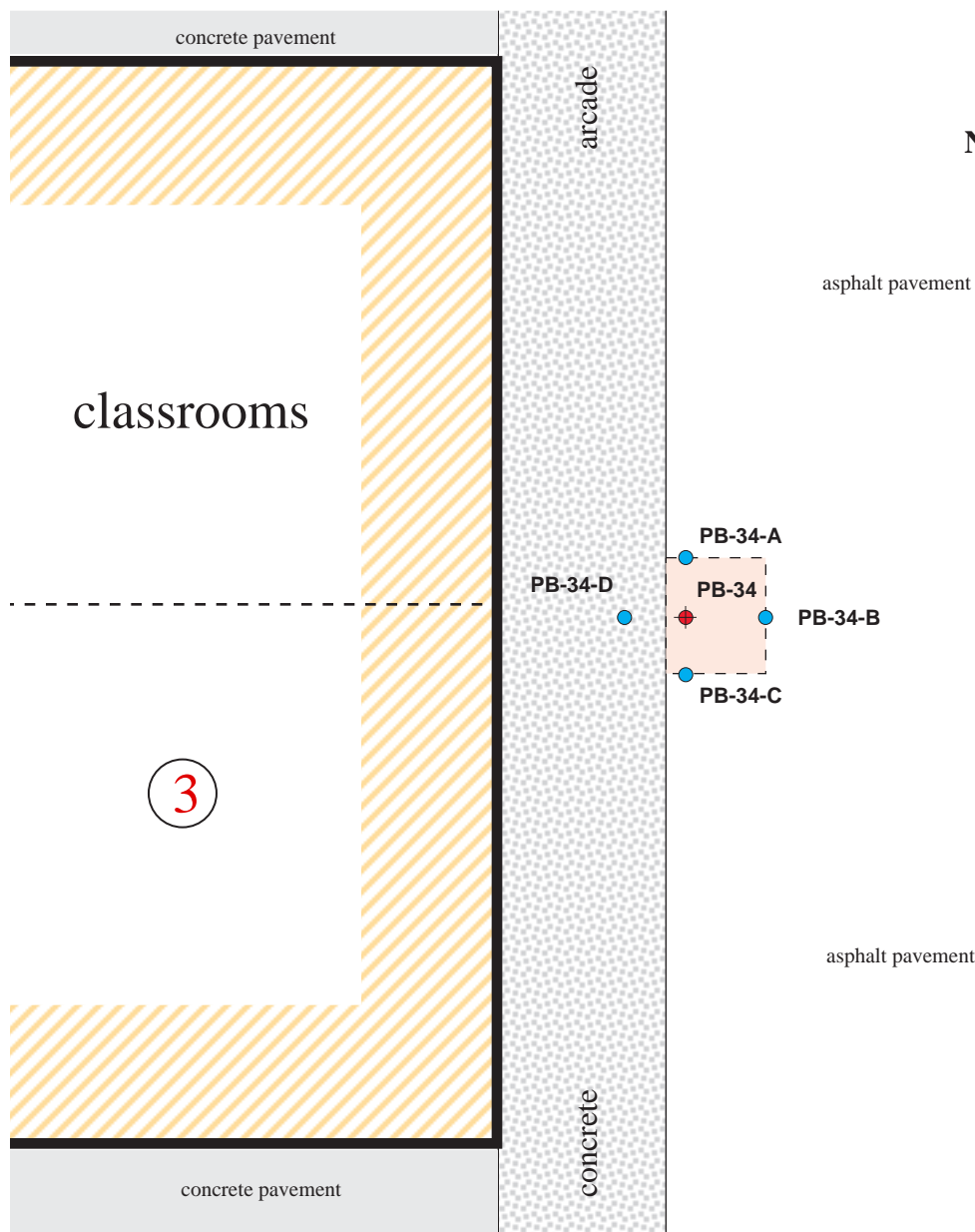
PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA 92610
Tel: (949) 470-3691 • Fax: (949) 595-0459

92nd Street Elementary School
9211 Grape Street
Los Angeles, CA

Recommended
Area for Soil
Removal - PB-27

Figure
8



- Area of Soil Removal to a Depth of 18 Inches
- Permanent Structure with ID Number
- PB-2** Soil Boring Locations (with boring number)
- Action Level Exceeded



PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA 92610
Tel: (949) 470-3691 • Fax: (949) 595-0459

92nd Street Elementary School
9211 Grape Street
Los Angeles, CA

Recommended
Area for Soil
Removal - PB-34

Figure
9

TABLES

TABLE 1
INITIAL SOIL SAMPLING RATIONALE

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Building or Area	Proposed Work	Concerns	Sampling Rationale	Number of Boring Locations	Boring Numbers	Analytical Methods	Sample Depths	Initial Analyses
South Playground	Repavement	Historical Pesticides Historical Agriculture	Areal Coverage	7	PB-1 to PB-6, PB-8	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A	6", 18", 30"	8
Storage Bin	Removal	Historical Pesticides Historical Agriculture Historical Storage	Targeted Location	1	PB-7	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A	6", 18", 30"	1
Cafeteria, Lunch Pavilion	Replacement	Historical Pesticides Historical Agriculture Lead	Targeted Perimeter	5	PB-9, PB-12 to PB-14, PB-20	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A	6", 18", 30"	5
Storage Building	Replacement	Historical Pesticides Historical Agriculture Lead Hazmat Storage	Targeted Perimeter	2	PB-15 and PB-48	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A VOCs - EPA Method 8260b TPH - EPA Method 8015m	6", 18", 30"	2
West Classroom Buildings	Replacement	Historical Pesticides Historical Agriculture Lead	Targeted Perimeter	14	PB-10, PB-11, PB-16 to PB-10, PB-27 to PB-30, PB-31 to PB-34	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A	6", 18", 30"	2
South Parking Lot	Repalcement	Historical Pesticides Historical Agriculture Lead	Areal Coverage	2	PB-21 and PB-22	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A	6", 18", 30"	2
East Two-Story Classroom	Replacement	Historical Pesticides Historical Agriculture Lead	Targeted Perimeter	4	PB-23 to PB-26	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A	6", 18", 30"	4
East Classroom	Replacement	Historical Pesticides Historical Agriculture Lead	Targeted Perimeter	3	PB-35 to PB-37	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A	6", 18", 30"	3

TABLE 1
INITIAL SOIL SAMPLING RATIONALE

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Building or Area	Proposed Work	Concerns	Sampling Rationale	Number of Boring Locations	Boring Numbers	Analytical Methods	Sample Depths	Initial Analyses
Kindergarten	Replacement	Historical Pesticides Historical Agriculture Lead	Targeted Perimeter	3	PB-38 to PB-40	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A	6", 18", 30"	3
Administration Building	Replacement	Historical Pesticides Historical Agriculture Lead	Targeted Perimeter	3	PB-42, PB-43 and PB-47	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A	6", 18", 30"	3
Main Parking Lot	Repavement	Historical Pesticides Historical Agriculture Lead	Areal Coverage	2	PB-41 and PB-44	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A	6", 18", 30"	2
Transformer (at northeast corner of campus)	None	Historical Pesticides Historical Agriculture Lead PCBs	Targeted Perimeter	2	PB-45 and PB-46	Arsenic - EPA Method 6010B Lead - EPA Method 6010B OCPs - EPA Method 8081A PCBs - EPA Method 8082	6", 18", 30"	2

Total Number of Initial Borings 48

TABLE 2
SUMMARY OF SOIL ANALYSES

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Boring Number	Sample Depth inches	Initial or Stepout	Lead	Lead	Lead	Arsenic	Arsenic	Arsenic	Title 22 Metals	OCPs	PCBs	TPH	VOCs
			EPA 6010B	STLC	TCLP	EPA 6010B	STLC	TCLP	6010B/7471A	EPA 8081A	EPA 8082	EPA 8015C	EPA 8260B
PB-1	6	Initial	X			X				X			
PB-1	18	Initial	X			X				X			
PB-1	30	Initial	X			X				X			
PB-2	6	Initial	X			X				X			
PB-2	18	Initial	X			X				X			
PB-2	30	Initial	X			X				X			
PB-3	6	Initial	X			X				X	X		
PB-3	18	Initial	X			X				X	X		
PB-3	30	Initial	X			X				X	X		
PB-4	6	Initial	X	X		X				X			
PB-4	18	Initial	X			X				X			
PB-4	30	Initial	X			X				X			
PB-5	6	Initial	X			X				X			
PB-5	18	Initial	X			X				X			
PB-5	30	Initial	X			X				X			
PB-6	6	Initial	X			X				X			
PB-6	18	Initial	X			X				X			
PB-6	30	Initial	X			X				X			
PB-7	6	Initial	X			X				X			
PB-7	18	Initial	X			X				X			
PB-7	30	Initial	X			X				X			
PB-8	6	Initial	X	X		X				X			
PB-8	18	Initial	X			X				X			
PB-8	30	Initial	X			X				X			
PB-9	6	Initial	X			X				X			
PB-9	18	Initial	X			X				X			
PB-9	30	Initial	X			X				X			
PB-10	6	Initial	X			X				X			
PB-10	18	Initial	X			X				X			
PB-10	30	Initial	X			X				X			
PB-11	6	Initial	X			X	X	X		X	X		
PB-11	18	Initial	X			X				X	X		
PB-11	30	Initial	X			X				X	X		
PB-11-A	6	Stepout				X							
PB-11-A	18	Stepout											
PB-11-AA	6	Stepout				X							
PB-11-AA	18	Stepout				X							
PB-11-B	6	Stepout				X	X	X					
PB-11-B	18	Stepout											
PB-11-BB	6	Stepout				X	X	X					
PB-11-BB	18	Stepout				X							
PB-11-C	6	Stepout				X							
PB-11-C	18	Stepout											
PB-11-CC	6	Stepout				X	X	X					
PB-11-CC	18	Stepout				X							
PB-11-D	6	Stepout				X							
PB-11-D	18	Stepout											
PB-11-DD	6	Stepout				X	X	X					
PB-11-DD	18	Stepout				X							
PB-12	6	Initial	X			X				X			
PB-12	18	Initial	X			X				X			
PB-12	30	Initial	X			X				X			
PB-13	6	Initial	X			X				X			
PB-13	18	Initial	X			X				X			
PB-13	30	Initial	X			X				X			
PB-14	6	Initial	X			X				X			
PB-14	18	Initial	X			X				X			
PB-14	30	Initial	X			X				X			
PB-15	6	Initial	X			X				X			
PB-15	18	Initial	X			X				X			
PB-15	30	Initial	X			X				X			
PB-16	6	Initial	X			X				X			
PB-16	18	Initial	X			X				X			
PB-16	30	Initial	X			X				X			
PB-17	6	Initial	X			X				X			
PB-17	18	Initial	X			X				X			
PB-17	30	Initial	X			X				X			
PB-18	6	Initial	X			X				X			
PB-18	18	Initial	X			X				X			
PB-18	30	Initial	X			X				X			
PB-19	6	Initial	X			X				X			
PB-19	18	Initial	X			X				X			
PB-19	30	Initial	X			X				X			
PB-20	6	Initial	X			X				X			
PB-20	18	Initial	X			X				X			
PB-20	30	Initial	X			X				X			
PB-21	6	Initial	X			X				X	X		
PB-21	18	Initial	X			X				X	X		
PB-21	30	Initial	X			X				X	X		

TABLE 2
SUMMARY OF SOIL ANALYSES

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Boring Number	Sample Depth	Initial or Stepout	Lead	Lead	Lead	Arsenic	Arsenic	Arsenic	Title 22 Metals	OCPs	PCBs	TPH	VOCs
	inches		EPA 6010B	STLC	TCLP	EPA 6010B	STLC	TCLP	6010B/7471A	EPA 8081A	EPA 8082	EPA 8015C	EPA 8260B
PB-22	6	Initial	X			X				X			
PB-22	18	Initial	X			X				X			
PB-22	30	Initial	X			X				X			
PB-23	6	Initial	X			X				X			
PB-23	18	Initial	X			X				X			
PB-23	30	Initial	X			X				X			
PB-24	6	Initial	X			X				X			
PB-24	18	Initial	X			X				X			
PB-24	30	Initial	X			X				X			
PB-25	6	Initial	X			X				X			
PB-25	18	Initial	X			X				X			
PB-25	30	Initial	X			X				X			
PB-26	6	Initial	X			X				X			
PB-26	18	Initial	X			X				X			
PB-26	30	Initial	X			X				X			
PB-27	6	Initial	X			X				X			
PB-27	18	Initial	X			X				X			
PB-27	30	Initial	X			X				X			
PB-27-A	6	Stepout				X							
PB-27-A	18	Stepout											
PB-27-AA	6	Stepout				X	X	X					
PB-27-AA	18	Stepout				X							
PB-27-B	6	Stepout				X							
PB-27-BB	6	Stepout											
PB-27-BB	18	Stepout											
PB-27-C	6	Stepout				X							
PB-27-C	18	Stepout											
PB-27-CC	6	Stepout				X	X	X					
PB-27-CC	18	Stepout				X							
PB-27-D	6	Stepout				X							
PB-28	6	Initial	X	X		X				X			
PB-28	18	Initial	X			X				X			
PB-28	30	Initial	X			X				X			
PB-29	6	Initial	X			X				X			
PB-29	18	Initial	X			X				X			
PB-29	30	Initial	X			X				X			
PB-30	6	Initial	X	X		X				X			
PB-30	18	Initial	X			X				X			
PB-30	30	Initial	X			X				X			
PB-31	6	Initial	X			X				X	X		
PB-31	18	Initial	X			X				X	X		
PB-31	30	Initial	X			X				X	X		
PB-32	6	Initial	X			X				X			
PB-32	18	Initial	X			X				X			
PB-32	30	Initial	X			X				X			
PB-33	6	Initial	X			X				X			
PB-33	18	Initial	X			X				X			
PB-33	30	Initial	X			X				X			
PB-34	6	Initial	X	X		X				X			
PB-34	18	Initial	X			X				X			
PB-34	30	Initial	X			X				X			
PB-34-A	6	Stepout	X			X							
PB-34-B	6	Stepout	X			X							
PB-34-C	6	Stepout	X			X							
PB-34-D	6	Stepout	X			X							
PB-35	6	Initial	X			X				X			
PB-35	18	Initial	X			X				X			
PB-35	30	Initial	X			X				X			
PB-36	6	Initial	X			X				X			
PB-36	18	Initial	X			X				X			
PB-36	30	Initial	X			X				X			
PB-37	6	Initial	X	X		X				X			
PB-37	18	Initial	X			X				X			
PB-37	30	Initial	X			X				X			
PB-38	6	Initial	X			X				X			
PB-38	18	Initial	X			X				X			
PB-38	30	Initial	X			X				X			
PB-39	6	Initial	X			X				X			
PB-39	18	Initial	X			X				X			
PB-39	30	Initial	X			X				X			
PB-40	6	Initial	X			X				X			
PB-40	18	Initial	X			X				X			
PB-40	30	Initial	X			X				X			
PB-41	6	Initial	X			X				X			
PB-41	18	Initial	X			X				X			
PB-41	30	Initial	X			X				X			
PB-42	6	Initial	X			X				X			
PB-42	18	Initial	X			X				X			
PB-42	30	Initial	X			X				X			

TABLE 2
SUMMARY OF SOIL ANALYSES

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Boring Number	Sample Depth inches	Initial or Stepout	Lead	Lead	Lead	Arsenic	Arsenic	Arsenic	Title 22 Metals	OCPs	PCBs	TPH	VOCs
			EPA 6010B	STLC	TCLP	EPA 6010B	STLC	TCLP	6010B/7471A	EPA 8081A	EPA 8082	EPA 8015C	EPA 8260B
PB-43	6	Initial	X			X				X			
PB-43	18	Initial	X			X				X			
PB-43	30	Initial	X			X				X			
PB-44	6	Initial	X			X				X			
PB-44	18	Initial	X			X				X			
PB-44	30	Initial	X			X				X			
PB-45	6	Initial	X			X				X	X		
PB-45	18	Initial	X			X				X	X		
PB-45	30	Initial	X			X				X	X		
PB-46	6	Initial	X			X				X	X		
PB-46	18	Initial	X			X				X	X		
PB-46	30	Initial	X			X				X	X		
PB-47	6	Initial	X			X				X			
PB-47	18	Initial	X			X				X			
PB-47	30	Initial	X			X				X			
PB-48	6	Initial	X			X				X		X	X
PB-48	18	Initial											
PB-48	30	Initial											
PB-49	6	Stepout											
PB-49	18	Stepout											
PB-50	6	Stepout											
PB-50	18	Stepout											
PB-51	6	Stepout				X							
PB-51	18	Stepout											
PB-52	6	Stepout											
PB-52	18	Stepout											
PB-53	6	Stepout				X							
PB-53	18	Stepout											
PB-54	6	Stepout											
PB-54	18	Stepout											
PB-55	6	Stepout											
PB-55	18	Stepout											
PB-56	6	Stepout											
PB-56	18	Stepout											
PB-57	6	Stepout											
PB-57	18	Stepout											
PB-58	6	Stepout											
PB-58	18	Stepout											
PB-59	6	Stepout											
PB-59	18	Stepout											
PB-60	6	Stepout											
PB-60	18	Stepout											
PB-61	6	Stepout				X							
PB-61	18	Stepout											
PB-62	6	Stepout											
PB-62	18	Stepout											
PB-63	6	Stepout											
PB-63	18	Stepout											
PB-64	6	Stepout				X							
PB-64	18	Stepout				X							
PB-65	6	Stepout											
PB-65	18	Stepout											
PB-66	6	Stepout											
PB-66	18	Stepout											
PB-67	6	Stepout											
PB-67	18	Stepout											
PB-68	6	Stepout				X							
PB-68	18	Stepout				X							
PB-69	6	Stepout				X							
PB-69	18	Stepout											
PB-70	6	Stepout				X							
PB-70	18	Stepout											
PB-71	6	Stepout				X							
PB-71	18	Stepout				X							
PB-72	6	Stepout				X							
PB-72	18	Stepout				X							
PB-73	6	Stepout											
PB-73	18	Stepout											
Soil Drum									X	X	X	X	X
Water Drum												X	X
Number of Analyses			147	6	0	179	7	7	1	142	19	3	3

NOTES:

X- - Analysis performed on the designated sample.

TABLE 3
SUMMARY OF SOIL ANALYTICAL RESULTS

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Analyzed Compounds	Number of Analyzed Samples	Number of Samples with Detections	Range of Detections
Lead	146	112	1.1-84 mg/kg
<i>STLC Lead</i>	6	3	1.4-4.4 mg/L
Arsenic	179	173	1.0-120 mg/kg
<i>STLC Arsenic</i>	7	6	1.0-3.0 mg/L
<i>TCLP Arsenic</i>	7	4	0.44-0.69 mg/L
OCPs	142	11	
<i>4,4'-DDT</i>	142	8	2.2-20 µg/kg
<i>4,4'-DDE</i>	142	4	2.8-44 µg/kg
<i>Dieldrin</i>	142	2	2.2-9.4 µg/kg
<i>Chlordane</i>	142	5	11-100 µg/kg
Title 22 Metals	1	1	
<i>Barium</i>	1	1	44 mg/kg
<i>Chromium</i>	1	1	5.6 mg/kg
<i>Cobalt</i>	1	1	3.6 mg/kg
<i>Copper</i>	1	1	6.0 mg/kg
<i>Lead</i>	1	1	1.9 mg/kg
<i>Nickel</i>	1	1	4.0 mg/kg
<i>Vanadium</i>	1	1	12 mg/kg
<i>Zinc</i>	1	1	20 mg/kg
TPH	3	0	
VOCs	3	0	
PCBs	18	0	

NOTES:

mg/kg - milligrams per kilogram

µg/kg - Micrograms per kilogram

mg/L - milligrams per liter

TABLE 4
SUMMARY OF SOIL ANALYTICAL RESULTS
ORGANOCHLORINE PESTICIDES

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Organochlorine Pesticides (OCPs) (ug/kg)			
		4,4'-DDT	4,4'-DDE	Dieldrin	Chlordane
EPA Method		EPA Method 8081A			
Reporting Limit		2 µg/kg	2 µg/kg	2 µg/kg	8.5 µg/kg
EPA RSL		1,900	2,000	34	1,700
PB-1-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-1-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-1-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-2-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-2-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-2-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-3-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-3-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-3-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-4-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-4-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-4-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-5-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-5-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-5-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-6-6"	3/27/18	5.9	44	9.4	100
PB-6-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-6-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-7-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-7-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-7-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-8-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-8-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-8-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-9-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-9-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-9-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-10-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-10-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-10-30"	3/27/18	6.3	ND < 2	ND < 2	ND < 8.5

TABLE 4
SUMMARY OF SOIL ANALYTICAL RESULTS
ORGANOCHLORINE PESTICIDES

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Organochlorine Pesticides (OCPs) (ug/kg)			
		4,4'-DDT	4,4'-DDE	Dieldrin	Chlordane
EPA Method		EPA Method 8081A			
Reporting Limit		2 µg/kg	2 µg/kg	2 µg/kg	8.5 µg/kg
EPA RSL		1,900	2,000	34	1,700
PB-11-6"	3/27/18	2.2	ND < 2	ND < 2	ND < 8.5
PB-11-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-11-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-12-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-12-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-12-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-13-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-13-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-13-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-14-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-14-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-14-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-15-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-15-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-15-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-16-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-16-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-16-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-17-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-17-18"	3/27/18	ND < 2	ND < 2	2.2	ND < 8.5
PB-17-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-18-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-18-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-18-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-19-6"	3/27/18	2.8	ND < 2	ND < 2	ND < 8.5
PB-19-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-19-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-20-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-20-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-20-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5

TABLE 4
SUMMARY OF SOIL ANALYTICAL RESULTS
ORGANOCHLORINE PESTICIDES

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Organochlorine Pesticides (OCPs) (ug/kg)			
		4,4'-DDT	4,4'-DDE	Dieldrin	Chlordane
EPA Method		EPA Method 8081A			
Reporting Limit		2 µg/kg	2 µg/kg	2 µg/kg	8.5 µg/kg
EPA RSL		1,900	2,000	34	1,700
PB-21-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-21-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-21-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-22-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-22-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-22-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-23-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-23-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-23-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-24-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-24-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-24-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-25-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-25-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-25-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-26-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-26-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-26-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-27-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-27-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-27-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-28-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-28-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-28-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-29-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-29-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-29-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-30-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-30-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-30-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5

TABLE 4
SUMMARY OF SOIL ANALYTICAL RESULTS
ORGANOCHLORINE PESTICIDES

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Organochlorine Pesticides (OCPs) (ug/kg)			
		4,4'-DDT	4,4'-DDE	Dieldrin	Chlordane
EPA Method		EPA Method 8081A			
Reporting Limit		2 µg/kg	2 µg/kg	2 µg/kg	8.5 µg/kg
EPA RSL		1,900	2,000	34	1,700
PB-31-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-31-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-31-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-32-6"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-32-18"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-32-30"	3/27/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-33-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-33-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-33-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-34-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-34-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-34-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-35-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-35-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-35-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-36-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-36-18"	3/28/18	20	27	ND < 2	ND < 8.5
PB-36-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-37-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-37-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-37-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-38-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-38-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-38-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-39-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-39-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-39-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-40-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-40-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-40-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5

TABLE 4
SUMMARY OF SOIL ANALYTICAL RESULTS
ORGANOCHLORINE PESTICIDES

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Organochlorine Pesticides (OCPs) (ug/kg)			
		4,4'-DDT	4,4'-DDE	Dieldrin	Chlordane
EPA Method		EPA Method 8081A			
Reporting Limit		2 µg/kg	2 µg/kg	2 µg/kg	8.5 µg/kg
EPA RSL		1,900	2,000	34	1,700
PB-41-6"	3/28/18	ND < 2	ND < 2	ND < 2	17
PB-41-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-41-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-42-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-42-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-42-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-43-6"	3/28/18	ND < 2	ND < 2	ND < 2	17
PB-43-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-43-30"	3/28/18	2.6	ND < 2	ND < 2	11
PB-44-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-44-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-44-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-45-6"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-45-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-45-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-46-6"	3/28/18	2.5	3.2	ND < 2	ND < 8.5
PB-46-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-46-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-47-6"	3/28/18	2.7	2.8	ND < 2	23
PB-47-18"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-47-30"	3/28/18	ND < 2	ND < 2	ND < 2	ND < 8.5
PB-48-6"	5/21/18	ND < 2	ND < 2	ND < 2	ND < 8.5

NOTES:

Pesticides not included on this table were not detected above the laboratory reporting limit

All chlordane isomers included with the reported general compound result

µg/kg - Micrograms per kilogram

ND - Compound not present above the given reporting limit

EPA RSL - US Environmental Protection Agency Regional Screening Limit (residential soil), Nov. 2018

TABLE 5
SUMMARY OF SOIL ANALYTICAL RESULTS
LEAD AND ARSENIC

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Total Lead	Arsenic
EPA Method		EPA Method 6010B	
Screening Level		80 mg/kg	12 mg/kg
Hazardous Waste Criteria	TTLC	1,000 mg/kg	500 mg/kg
	10 x STLC	50 ug/L	50 ug/L
PB-1-6"	3/27/18	ND < 1	1.2
PB-1-18"	3/27/18	ND < 1	1.3
PB-1-30"	3/27/18	ND < 1	1.4
PB-2-6"	3/27/18	38	4.7
PB-2-18"	3/27/18	ND < 1	ND < 1
PB-2-30"	3/27/18	ND < 1	ND < 1
PB-3-6"	3/27/18	4.5	1.6
PB-3-18"	3/27/18	1.8	1.2
PB-3-30"	3/27/18	ND < 1	1.4
PB-4-6"	3/27/18	51	2.9
PB-4-18"	3/27/18	1.9	1.2
PB-4-30"	3/27/18	ND < 1	1.6
PB-5-6"	3/27/18	6.6	1.0
PB-5-18"	3/27/18	ND < 1	ND < 1
PB-5-30"	3/27/18	ND < 1	ND < 1
PB-6-6"	3/27/18	44	5.4
PB-6-18"	3/27/18	6.1	1.1
PB-6-30"	3/27/18	ND < 1	1.2
PB-7-6"	3/27/18	11	5.4
PB-7-18"	3/27/18	1.3	4.1
PB-7-30"	3/27/18	14	6.4
PB-8-6"	3/27/18	50	1.3
PB-8-18"	3/27/18	6.6	ND < 1
PB-8-30"	3/27/18	ND < 1	1.2
PB-9-6"	3/27/18	2.5	1.7
PB-9-18"	3/27/18	3.9	3.8
PB-9-30"	3/27/18	44	1.3
PB-10-6"	3/27/18	18	6.8
PB-10-18"	3/27/18	ND < 1	1.7
PB-10-30"	3/27/18	ND < 1	1.9

TABLE 5
SUMMARY OF SOIL ANALYTICAL RESULTS
LEAD AND ARSENIC

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Total Lead	Arsenic
EPA Method		EPA Method 6010B	
Screening Level		80 mg/kg	12 mg/kg
Hazardous Waste Criteria	TTLC	1,000 mg/kg	500 mg/kg
	10 x STLC	50 ug/L	50 ug/L
PB-11-6"	3/27/18	7.4	100
PB-11-18"	3/27/18	ND < 1	ND < 1
PB-11-30"	3/27/18	ND < 1	ND < 1
PB-11-A-6"	5/21/18	NA	20
PB-11-A-18"	5/19/18	NA	1.6
PB-11-AA-6"	8/13/18	NA	7.3
PB-11-AA-18"	8/13/18	NA	5.8
PB-11-B-6"	5/21/18	NA	53
PB-11-B-18"	5/19/18	NA	1.0
PB-11-BB-6"	8/13/18	NA	61
PB-11-BB-18"	8/13/18	NA	11
PB-11-C-6"	5/21/18	NA	13
PB-11-C-18"	5/19/18	NA	ND < 1
PB-11-CC-6"	8/13/18	NA	120
PB-11-CC-18"	8/13/18	NA	ND < 1
PB-11-D-6"	5/21/18	NA	22
PB-11-D-18"	5/19/18	NA	1.0
PB-11-DD-6"	8/13/18	NA	120
PB-11-DD-18"	8/13/18	NA	18
PB-12-6"	3/27/18	22	4.3
PB-12-18"	3/27/18	1.2	2.3
PB-12-30"	3/27/18	ND < 1	1.5
PB-13-6"	3/27/18	ND < 1	1.7
PB-13-18"	3/27/18	3.7	2.2
PB-13-30"	3/27/18	5.6	2.6
PB-14-6"	3/28/18	2.4	2.0
PB-14-18"	3/28/18	2.1	3.3
PB-14-30"	3/28/18	3.6	2.3

TABLE 5
SUMMARY OF SOIL ANALYTICAL RESULTS
LEAD AND ARSENIC

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Total Lead	Arsenic
EPA Method		EPA Method 6010B	
Screening Level		80 mg/kg	12 mg/kg
Hazardous Waste Criteria	TTLC	1,000 mg/kg	500 mg/kg
	10 x STLC	50 ug/L	50 ug/L
PB-15-6"	3/27/18	5.9	1.6
PB-15-18"	3/27/18	ND < 1	1.4
PB-15-30"	3/27/18	ND < 1	1.7
PB-16-6"	3/27/18	6.7	2.3
PB-16-18"	3/27/18	5.8	1.4
PB-16-30"	3/27/18	2.4	ND < 1
PB-17-6"	3/27/18	20	5.9
PB-17-18"	3/27/18	5.4	1.5
PB-17-30"	3/27/18	4.6	2.0
PB-18-6"	3/27/18	6.9	1.7
PB-18-18"	3/27/18	11	3.9
PB-18-30"	3/27/18	ND < 1	ND < 1
PB-19-6"	3/27/18	5.3	1.3
PB-19-18"	3/27/18	1.7	5.0
PB-19-30"	3/27/18	5.8	1.0
PB-20-6"	3/28/18	2.6	2.6
PB-20-18"	3/28/18	3.6	2.1
PB-20-30"	3/28/18	6.5	7.5
PB-21-6"	3/28/18	3.2	4.3
PB-21-18"	3/28/18	ND < 1	1.5
PB-21-30"	3/28/18	ND < 1	1.7
PB-22-6"	3/28/18	7.7	5.7
PB-22-18"	3/28/18	ND < 1	1.4
PB-22-30"	3/28/18	ND < 1	1.8
PB-23-6"	3/28/18	4.1	3.4
PB-23-18"	3/28/18	3.0	3.2
PB-23-30"	3/28/18	3.2	3.2
PB-24-6"	3/28/18	7.2	2.3
PB-24-18"	3/28/18	1.7	2.7
PB-24-30"	3/28/18	ND < 1	1.9

TABLE 5
SUMMARY OF SOIL ANALYTICAL RESULTS
LEAD AND ARSENIC

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Total Lead	Arsenic
EPA Method		EPA Method 6010B	
Screening Level		80 mg/kg	12 mg/kg
Hazardous Waste Criteria	TTLC	1,000 mg/kg	500 mg/kg
	10 x STLC	50 ug/L	50 ug/L
PB-25-6"	3/28/18	8.8	1.8
PB-25-18"	3/28/18	1.4	2.0
PB-25-30"	3/28/18	ND < 1	1.2
PB-26-6"	3/28/18	2.3	1.9
PB-26-18"	3/28/18	2.0	1.5
PB-26-30"	3/28/18	9.2	2.6
PB-27-6"	3/27/18	17	32
PB-27-A-6"	5/21/18	NA	16
PB-27-A-18"	5/19/18	NA	1.5
PB-27-AA-6"	8/13/18	NA	59
PB-27-AA-18"	8/13/18	NA	1.7
PB-27-B-6"	5/21/18	NA	2.4
PB-27-C-6"	5/21/18	NA	21
PB-27-C-18"	5/21/18	NA	8.0
PB-27-CC-6"	8/13/18	NA	91
PB-27-CC-18"	8/13/18	NA	1.9
PB-27-D-6"	5/21/18	NA	ND < 1
PB-27-18"	3/27/18	13	2.9
PB-27-30"	3/27/18	14	1.3
PB-28-6"	3/27/18	54	1.3
PB-28-18"	3/27/18	7.0	1.8
PB-28-30"	3/27/18	ND < 1	ND < 1
PB-29-6"	3/27/18	37	1.4
PB-29-18"	3/27/18	10	2.1
PB-29-30"	3/27/18	15	2.4
PB-30-6"	3/27/18	58	1.9
PB-30-18"	3/27/18	ND < 1	ND < 1
PB-30-30"	3/27/18	ND < 1	1.4

TABLE 5
SUMMARY OF SOIL ANALYTICAL RESULTS
LEAD AND ARSENIC

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Total Lead	Arsenic
EPA Method		EPA Method 6010B	
Screening Level		80 mg/kg	12 mg/kg
Hazardous Waste Criteria	TTLC	1,000 mg/kg	500 mg/kg
	10 x STLC	50 ug/L	50 ug/L
PB-31-6"	3/27/18	19	3.3
PB-31-18"	3/27/18	16	1.6
PB-31-30"	3/27/18	ND < 1	1.1
PB-32-6"	3/27/18	32	1.2
PB-32-18"	3/27/18	27	1.3
PB-32-30"	3/27/18	ND < 1	1.3
PB-33-6"	3/28/18	22	1.7
PB-33-18"	3/28/18	3.4	1.2
PB-33-30"	3/28/18	ND < 1	1.6
PB-34-6"	3/28/18	84	14
PB-34-A-6"	5/21/18	10	1.4
PB-34-B-6"	5/21/18	7.2	ND < 1
PB-34-C-6"	5/21/18	9.2	1.6
PB-34-D-6"	5/21/18	33	1.5
PB-34-18"	3/28/18	1.6	1.8
PB-34-30"	3/28/18	ND < 1	2.1
PB-35-6"	3/28/18	18	2.0
PB-35-18"	3/28/18	12	2.1
PB-35-30"	3/28/18	2.6	2.5
PB-36-6"	3/28/18	17	2.2
PB-36-18"	3/28/18	26	2.2
PB-36-30"	3/28/18	1.6	2.6
PB-37-6"	3/28/18	62	3.0
PB-37-18"	3/28/18	33	1.2
PB-37-30"	3/28/18	1.4	3.0
PB-38-6"	3/28/18	35	2.8
PB-38-18"	3/28/18	5.7	2.1
PB-38-30"	3/28/18	6.0	2.4

TABLE 5
SUMMARY OF SOIL ANALYTICAL RESULTS
LEAD AND ARSENIC

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Total Lead	Arsenic
EPA Method		EPA Method 6010B	
Screening Level		80 mg/kg	12 mg/kg
Hazardous Waste Criteria	TTLc	1,000 mg/kg	500 mg/kg
	10 x STLC	50 ug/L	50 ug/L
PB-39-6"	3/28/18	45	8.5
PB-39-18"	3/28/18	11	1.1
PB-39-30"	3/28/18	10	1.2
PB-40-6"	3/28/18	9.1	3.2
PB-40-18"	3/28/18	5.4	3.2
PB-40-30"	3/28/18	7.4	3.5
PB-41-6"	3/28/18	14	2.7
PB-41-18"	3/28/18	6.0	3.1
PB-41-30"	3/28/18	11	4.0
PB-42-6"	3/28/18	6.7	3.1
PB-42-18"	3/28/18	8.9	2.6
PB-42-30"	3/28/18	4.4	4.5
PB-43-6"	3/28/18	12	7.3
PB-43-18"	3/28/18	24	1.6
PB-43-30"	3/28/18	31	2.2
PB-44-6"	3/28/18	10	2.5
PB-44-18"	3/28/18	2.0	3.5
PB-44-30"	3/28/18	1.8	2.5
PB-45-6"	3/28/18	9.3	3.2
PB-45-18"	3/28/18	5.1	2.9
PB-45-30"	3/28/18	6.3	2.2
PB-46-6"	3/28/18	28	5.4
PB-46-18"	3/28/18	8.2	3.4
PB-46-30"	3/28/18	1.9	2.4
PB-47-6"	3/28/18	18	4.4
PB-47-18"	3/28/18	7.1	3.5
PB-47-30"	3/28/18	2.8	3.1
PB-48-6"	5/21/18	1.7	5.4
PB-51-6"	8/19/18	NA	2.6
PB-53-6"	8/19/18	NA	1.5

TABLE 5
SUMMARY OF SOIL ANALYTICAL RESULTS
LEAD AND ARSENIC

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Total Lead	Arsenic
EPA Method		EPA Method 6010B	
Screening Level		80 mg/kg	12 mg/kg
Hazardous Waste Criteria	TTL	1,000 mg/kg	500 mg/kg
	10 x STLC	50 ug/L	50 ug/L
PB-61-6"	8/19/18	NA	11
PB-64-6"	8/19/18	NA	1.2
PB-64-18"	8/19/18	NA	2.6
PB-68-6"	8/19/18	NA	7.2
PB-68-18"	8/19/18	NA	ND < 1
PB-69-6"	8/19/18	NA	1.2
PB-70-6"	8/19/18	NA	11
PB-71-6"	8/19/18	NA	35
PB-71-18"	8/19/18	NA	2.4
PB-72-6"	8/19/18	NA	6.3
PB-72-18"	8/19/18	NA	ND < 1

NOTES:

Pesticides not included on this table were not detected above the laboratory reporting limit.

All chlordane isomers included with the reported general compound result
µg/kg - micrograms per kilogram

ND - Compound not present above the given reporting limit

EPA RSL - US Environmental Protection Agency Regional Screening Limit
(residential soil), May 2016.

TABLE 6
SUMMARY OF SOIL ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYLS

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Polychlorinated Biphenyls (PCBs) (µg/kg)						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
EPA Method		EPA Method 8082						
Reporting Limit		10 µg/kg						
EPA RSL		6,700	200	170	230	230	240	240
PB-3-6"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-3-18"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-3-30"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-11-6"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-11-18"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-11-30"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-21-6"	3/28/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-21-18"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-21-30"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-31-6"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-31-18"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-31-30"	3/27/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16

TABLE 6
SUMMARY OF SOIL ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYLS

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Polychlorinated Biphenyls (PCBs) (µg/kg)						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
EPA Method		EPA Method 8082						
Reporting Limit		10 µg/kg						
EPA RSL		6,700	200	170	230	230	240	240
PB-45-6"	3/28/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-45-18"	3/28/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-45-30"	3/28/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-46-6"	3/28/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-46-18"	3/28/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16
PB-46-30"	3/28/18	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16	ND < 16

NOTES:

µg/kg - Micrograms per kilogram

ND - Compound not present above the given reporting limit

EPA RSL - US Environmental Protection Agency Regional Screening Limit (residential soil), May 2016

TABLE 7
SUMMARY OF SOIL ANALYTICAL RESULTS
SOLUBLE LEAD AND ARSENIC

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Total and Soluble Waste Concentrations						Waste Characterization
		Lead	Lead STLC	Lead TCLP	Arsenic	Arsenic STLC	Arsenic TCLP	
EPA Method		6010B	STLC	TCLP	6010B	STLC	TCLP	
Reporting Limit		various	0.2	0.1	various	5	5	
Units		mg/kg	mg/L	mg/L	mg/kg	mg/L	mg/L	
Hazardous Waste Limit		1,000	5	5	500	5	5	
PB-4-6"	3/27/18	51	ND < 1	NA	2.9	NA	NA	Non-Hazardous
PB-8-6"	3/27/18	50	3.6	NA	1.3	NA	NA	Non-Hazardous
PB-11-6"	3/27/18	7.4	NA	NA	100	2.7	0.55	Non-Hazardous
PB-11-B-6"	3/27/18	NA	NA	NA	53	2.8	0.69	Non-Hazardous
PB-11-BB-6"	3/27/18	NA	NA	NA	61	1.6	0.44	Non-Hazardous
PB-11-CC-6"	3/28/18	NA	NA	NA	120	1.3	ND < 0.25	Non-Hazardous
PB-11-DD-6"	3/27/18	NA	NA	NA	120	3.0	0.65	Non-Hazardous
PB-27-AA-6"	3/27/18	NA	NA	NA	59	1.0	ND < 0.25	Non-Hazardous
PB-27-CC-6"	3/27/18	NA	NA	NA	91	ND < 1	ND < 0.25	Non-Hazardous

TABLE 7
SUMMARY OF SOIL ANALYTICAL RESULTS
SOLUBLE LEAD AND ARSENIC

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Sample Number	Sample Date	Total and Soluble Waste Concentrations						Waste Characterization
		Lead	Lead STLC	Lead TCLP	Arsenic	Arsenic STLC	Arsenic TCLP	
EPA Method		6010B	STLC	TCLP	6010B	STLC	TCLP	
Reporting Limit		various	0.2	0.1	various	5	5	
Units		mg/kg	mg/L	mg/L	mg/kg	mg/L	mg/L	
Hazardous Waste Limit		1,000	5	5	500	5	5	
PB-28-6"	3/28/18	54	1.4	NA	1.3	NA	NA	Non-Hazardous
PB-30-6"	3/28/18	58	ND < 1	NA	1.9	NA	NA	Non-Hazardous
PB-34-6"	3/28/18	84	4.4	NA	14	NA	NA	Non-Hazardous
PB-37-6"	3/28/18	62	ND < 1	NA	3.0	NA	NA	Non-Hazardous

NOTES:

STLC - Soluble Threshold Limit Concentration

TCLP - Total Threshold Limit Concentration

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

ND - Compound not present above the given reporting limit

NA - not analyzed

TABLE 8
SUMMARY OF IMPACTED SOIL VOLUMES

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

Initial Boring Location	Estimated Bank Volume	Bulk Factor	Estimated Excavated Volume	Estimated Excavated Weight
	(cubic yards)	(percent)	(cubic yards)	(tons)
PB-11	26.6	140	37.2	50.3
PB-27	6.9	140	9.7	13.0
PB-34	1.7	140	2.4	3.2
Totals	35.2	---	49.3	66.5

TABLE 9
SUMMARY OF COPC DETECTIONS

92nd Street Elementary School
9211 Grape Street, Los Angeles, California

COPCs	Maximum Detected Concentration	Action/ Screening Level	Source for Action/ Screening Level
	mg/kg	mg/kg	
Arsenic	120.0	12	DTSC
Lead	84.0	80	DTSC/SL
4,4'-DDE	0.044	2.0	RSL
4,4'-DDT	0.020	1.9	RSL
Dieldrin	0.009	0.13	RSL
Chlordane	0.100	31	RSL

NOTES

COPC - Contaminant of Potential Concern

mg/kg - milligrams per kilogram

DTSC - Department of Toxic Substances Control

SL - Screening Level

RSL - Regional Screening Level

APPENDIX A

PINNACLE ENVIRONMENTAL TECHNOLOGIES GENERAL FIELD PROCEDURES

APPENDIX A

GENERAL FIELD PROCEDURES

The following sections outline the general field procedures and protocols followed by Pinnacle Environmental Technologies (Pinnacle) in the completion of field tasks. Some, but not necessarily all, of these procedures were used during this investigation. Any deviation from the procedures outlined here due to unique or unforeseen circumstances will be noted in the body of the applicable report. The following tasks are detailed:

- Soil Sample Collection - Direct Push Rigs, Hollow Stem Auger Sampling
- Soil Classification and Logging
- Chain-of-Custody Protocol

Soil Sample Collection

Soil samples are collected to allow soil description/classification and for laboratory analysis. Samples may be collected using a variety of different techniques including: hollow stem auger rigs (drop hammer samplers), direct push rigs, composite grab samplers, or excavation samples. The sampling technique utilized will be selected based on the particular phase of work and sample requirements. All soil samples collected during drilling operations are also monitored for volatile organic vapors. This is accomplished using a photo-ionization detector (PID) monitor the soil either at the ends of sample tubes or after it has been placed in sealed seam-sealing plastic bags. The maximum PID and LEL readings are recorded on the boring log. Field headspace readings are also used to determine if a soil sample will be analyzed in the laboratory.

Direct-Push Drill Rigs

Samples collected using direct-push techniques are collected in either brass/stainless steel tubes or acetate sleeves. The sampling device is advanced using hydraulic pressure and a hammer into undisturbed soil ahead of the sampler. The sleeves or tubes are removed from the sampling device after retrieving the sampler from the boring. If acetate sleeves are used, the sleeve is examined and the sample portion selected for laboratory analysis is cut off from the main sleeve. A 4 to 6-inch portion is typically removed for laboratory analysis. After the sample tubes are retrieved from the sampler, each tube is sealed using Teflon tape and plastic end caps. Each sample tube is labeled with the sample identification, date and time of sampling, and sample site identification. The sample is then placed in a cooler chilled with either blue ice or “wet” ice for transport to the laboratory.

Hollow Stem Auger Sampling

Hollow stem auger samples are typically collected in split tube samples, “California” samplers, or Shelby tubes. When a sample for laboratory analysis or standard penetration test (SPT) data is required, the sampler is driven into undisturbed soil with a down hole or standard 140 pound geotechnical hammer. The sampler is lined with brass/stainless steel (if required for metal analysis) tubes for handling the undisturbed samples at the surface. Tubes are not used for SPTs. After bringing the sampler to the surface and removing the tubes with sample, they are handled as described earlier in this section. Samples for description are released from the sampler shoe and placed into a Ziploc bag for headspace analysis and visual inspection. Disturbed samples for geotechnical analysis are placed in Ziploc bags.

All augers, rods and/or samplers used to collect soil at the Site were steam-cleaned between locations.

Soil Classification and Logging

Soils are classified in the field in conformance with the Unified Soil Classification System (USCS-ASTM D2487).

A boring log is maintained for soil borings and well installations. Each log records the sample identification, collection location, depth and interval; number of blows required for sample collection (drop hammer samplers only); USCS soil type, color, field density estimation, field moisture content estimation, physical characteristics (grain size, sorting, roundness, odors, and other distinguishing characteristics); and, time of sample collection.

If a boring is not converting to a well, it is backfilled with either hydrated bentonite chips, Volclay grout, bentonite cement, Portland cement, or a combination of the above. Borings are backfilled in accordance with any prevailing local standards and regulations.

Chain-of-Custody Protocol

All soil samples that are collected are documented using chain-of-custody (COC) procedures. Each sample is identified and entered onto the COC record along with the date and time of collection and the type and number of sample containers. COC documents also typically used to document which analyses are completed on each sample. The COC follows the samples from the field to the laboratory and is a legal document recording who had possession of the samples at all times.

The soil samples were delivered to the laboratory on the day of sample collection. They were immediately put into a refrigerator after acceptance by the laboratory.

APPENDIX B

LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION FOR INITIAL SOIL SAMPLES



April 10, 2018

Keith Thompson
Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610
Tel: (949) 470-3691
Fax: (949) 887-8247

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1801233
Client Reference : 92nd St. ES

Enclosed are the results for sample(s) received on March 27, 2018 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small "ER" monogram to the left.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 04/10/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PB-1-6"	1801233-01	Soil	3/27/18 0:00	3/27/18 17:00
PB-1-18"	1801233-02	Soil	3/27/18 0:00	3/27/18 17:00
PB-1-30"	1801233-03	Soil	3/27/18 0:00	3/27/18 17:00
PB-2-6"	1801233-04	Soil	3/27/18 0:00	3/27/18 17:00
PB-2-18"	1801233-05	Soil	3/27/18 0:00	3/27/18 17:00
PB-2-30"	1801233-06	Soil	3/27/18 0:00	3/27/18 17:00
PB-4-6"	1801233-07	Soil	3/27/18 0:00	3/27/18 17:00
PB-4-18"	1801233-08	Soil	3/27/18 0:00	3/27/18 17:00
PB-4-30"	1801233-09	Soil	3/27/18 0:00	3/27/18 17:00
PB-5-6"	1801233-10	Soil	3/27/18 0:00	3/27/18 17:00
PB-5-18"	1801233-11	Soil	3/27/18 0:00	3/27/18 17:00
PB-5-30"	1801233-12	Soil	3/27/18 0:00	3/27/18 17:00
PB-7-6"	1801233-13	Soil	3/27/18 0:00	3/27/18 17:00
PB-7-18"	1801233-14	Soil	3/27/18 0:00	3/27/18 17:00
PB-7-30"	1801233-15	Soil	3/27/18 0:00	3/27/18 17:00
PB-10-6"	1801233-16	Soil	3/27/18 0:00	3/27/18 17:00
PB-10-18"	1801233-17	Soil	3/27/18 0:00	3/27/18 17:00
PB-10-30"	1801233-18	Soil	3/27/18 0:00	3/27/18 17:00
PB-11-6"	1801233-19	Soil	3/27/18 0:00	3/27/18 17:00
PB-11-18"	1801233-20	Soil	3/27/18 0:00	3/27/18 17:00
PB-11-30"	1801233-21	Soil	3/27/18 0:00	3/27/18 17:00
PB-3-6"	1801233-22	Soil	3/27/18 0:00	3/27/18 17:00
PB-3-18"	1801233-23	Soil	3/27/18 0:00	3/27/18 17:00
PB-3-30"	1801233-24	Soil	3/27/18 0:00	3/27/18 17:00
PB-8-6"	1801233-25	Soil	3/27/18 0:00	3/27/18 17:00
PB-8-18"	1801233-26	Soil	3/27/18 0:00	3/27/18 17:00
PB-8-30"	1801233-27	Soil	3/27/18 0:00	3/27/18 17:00
PB-6-6"	1801233-28	Soil	3/27/18 0:00	3/27/18 17:00
PB-6-18"	1801233-29	Soil	3/27/18 0:00	3/27/18 17:00
PB-6-30"	1801233-30	Soil	3/27/18 0:00	3/27/18 17:00
PB-9-6"	1801233-31	Soil	3/27/18 0:00	3/27/18 17:00
PB-9-18"	1801233-32	Soil	3/27/18 0:00	3/27/18 17:00
PB-9-30"	1801233-33	Soil	3/27/18 0:00	3/27/18 17:00
PB-13-6"	1801233-34	Soil	3/27/18 0:00	3/27/18 17:00
PB-13-18"	1801233-35	Soil	3/27/18 0:00	3/27/18 17:00
PB-13-30"	1801233-36	Soil	3/27/18 0:00	3/27/18 17:00
PB-12-6"	1801233-37	Soil	3/27/18 0:00	3/27/18 17:00



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 04/10/2018

PB-12-18"	1801233-38	Soil	3/27/18 0:00	3/27/18 17:00
PB-12-30"	1801233-39	Soil	3/27/18 0:00	3/27/18 17:00
PB-16-6"	1801233-40	Soil	3/27/18 0:00	3/27/18 17:00
PB-16-18"	1801233-41	Soil	3/27/18 0:00	3/27/18 17:00
PB-16-30"	1801233-42	Soil	3/27/18 0:00	3/27/18 17:00
PB-19-6"	1801233-43	Soil	3/27/18 0:00	3/27/18 17:00
PB-19-18"	1801233-44	Soil	3/27/18 0:00	3/27/18 17:00
PB-19-30"	1801233-45	Soil	3/27/18 0:00	3/27/18 17:00
PB-15-6"	1801233-46	Soil	3/27/18 0:00	3/27/18 17:00
PB-15-18"	1801233-47	Soil	3/27/18 0:00	3/27/18 17:00
PB-15-30"	1801233-48	Soil	3/27/18 0:00	3/27/18 17:00
PB-18-6"	1801233-49	Soil	3/27/18 0:00	3/27/18 17:00
PB-18-18"	1801233-50	Soil	3/27/18 0:00	3/27/18 17:00
PB-18-30"	1801233-51	Soil	3/27/18 0:00	3/27/18 17:00
PB-17-6"	1801233-52	Soil	3/27/18 0:00	3/27/18 17:00
PB-17-18"	1801233-53	Soil	3/27/18 0:00	3/27/18 17:00
PB-17-30"	1801233-54	Soil	3/27/18 0:00	3/27/18 17:00
PB-29-6"	1801233-55	Soil	3/27/18 0:00	3/27/18 17:00
PB-29-18"	1801233-56	Soil	3/27/18 0:00	3/27/18 17:00
PB-29-30"	1801233-57	Soil	3/27/18 0:00	3/27/18 17:00
PB-28-6"	1801233-58	Soil	3/27/18 0:00	3/27/18 17:00
PB-28-18"	1801233-59	Soil	3/27/18 0:00	3/27/18 17:00
PB-28-30"	1801233-60	Soil	3/27/18 0:00	3/27/18 17:00
PB-27-6"	1801233-61	Soil	3/27/18 0:00	3/27/18 17:00
PB-27-18"	1801233-62	Soil	3/27/18 0:00	3/27/18 17:00
PB-27-30"	1801233-63	Soil	3/27/18 0:00	3/27/18 17:00
PB-32-6"	1801233-64	Soil	3/27/18 0:00	3/27/18 17:00
PB-32-18"	1801233-65	Soil	3/27/18 0:00	3/27/18 17:00
PB-32-30"	1801233-66	Soil	3/27/18 0:00	3/27/18 17:00
PB-31-6"	1801233-67	Soil	3/27/18 0:00	3/27/18 17:00
PB-31-18"	1801233-68	Soil	3/27/18 0:00	3/27/18 17:00
PB-31-30"	1801233-69	Soil	3/27/18 0:00	3/27/18 17:00
PB-30-6"	1801233-70	Soil	3/27/18 0:00	3/27/18 17:00
PB-30-18"	1801233-71	Soil	3/27/18 0:00	3/27/18 17:00
PB-30-30"	1801233-72	Soil	3/27/18 0:00	3/27/18 17:00



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-1-6"

Lab ID: 1801233-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8C0846	03/29/2018	03/29/18 13:16	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B8D0030	04/02/2018	04/03/18 16:36	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:12	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:12	
4,4'-DDT	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:12	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:12	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:12	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Chlordane	ND	8.5	1	B8D0152	04/04/2018	04/04/18 19:12	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:12	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:12	
gamma-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 19:12	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 19:12	

Surrogate: Decachlorobiphenyl 52.4 % 15 - 100 B8D0152 04/04/2018 04/04/18 19:12

Surrogate: Tetrachloro-m-xylene 44.1 % 16 - 100 B8D0152 04/04/2018 04/04/18 19:12



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-1-18"

Lab ID: 1801233-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 15:43	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	1	B8D0030	04/02/2018	04/03/18 16:39	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:14	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:14	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:14	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:14	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:14	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 15:14	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:14	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:14	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 15:14	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 15:14	

Surrogate: Decachlorobiphenyl	58.5 %	15 - 100	B8D0099	04/03/2018	04/03/18 15:14
Surrogate: Tetrachloro-m-xylene	51.9 %	16 - 100	B8D0099	04/03/2018	04/03/18 15:14



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-1-30"

Lab ID: 1801233-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 15:47	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	1	B8D0030	04/02/2018	04/03/18 16:40	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:25	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:25	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:25	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:25	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:25	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 15:25	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:25	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:25	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 15:25	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 15:25	

Surrogate: Decachlorobiphenyl	55.2 %	15 - 100	B8D0099	04/03/2018	04/03/18 15:25
Surrogate: Tetrachloro-m-xylene	49.8 %	16 - 100	B8D0099	04/03/2018	04/03/18 15:25



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-2-6"

Lab ID: 1801233-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	38	1.0	1	B8C0846	03/29/2018	03/29/18 13:22	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	1	B8D0030	04/02/2018	04/03/18 16:41	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:22	
4,4'-DDE [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:22	
4,4'-DDT [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:22	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:22	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:22	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Chlordane	ND	8.5	1	B8D0152	04/04/2018	04/04/18 19:22	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:22	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:22	
gamma-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 19:22	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 19:22	

Surrogate: Decachlorobiphenyl [2C] 44.1 % 15 - 100 B8D0152 04/04/2018 04/04/18 19:22

Surrogate: Tetrachloro-m-xylene 29.4 % 16 - 100 B8D0152 04/04/2018 04/04/18 19:22



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-2-18"

Lab ID: 1801233-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 15:48	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0030	04/02/2018	04/03/18 16:42	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:35	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:35	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:35	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:35	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:35	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 15:35	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:35	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:35	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 15:35	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 15:35	

Surrogate: Decachlorobiphenyl	80.1 %	15 - 100	B8D0099	04/03/2018	04/03/18 15:35
Surrogate: Tetrachloro-m-xylene	58.9 %	16 - 100	B8D0099	04/03/2018	04/03/18 15:35



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-2-30"

Lab ID: 1801233-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 15:49	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0030	04/02/2018	04/03/18 16:48	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:45	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:45	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:45	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:45	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:45	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 15:45	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:45	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:45	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 15:45	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 15:45	

Surrogate: Decachlorobiphenyl	86.8 %	15 - 100	B8D0099	04/03/2018	04/03/18 15:45
Surrogate: Tetrachloro-m-xylene	60.3 %	16 - 100	B8D0099	04/03/2018	04/03/18 15:45



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-4-6"

Lab ID: 1801233-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	51	1.0	1	B8C0846	03/29/2018	03/29/18 13:23	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	1	B8D0030	04/02/2018	04/03/18 16:49	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:33	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:33	
4,4'-DDT	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Aldrin [2C]	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:33	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:33	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:33	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Chlordane [2C]	ND	8.5	1	B8D0152	04/04/2018	04/04/18 19:33	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:33	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:33	
gamma-Chlordane [2C]	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 19:33	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 19:33	

Surrogate: Decachlorobiphenyl	49.3 %	15 - 100	B8D0152	04/04/2018	04/04/18 19:33
Surrogate: Tetrachloro-m-xylene	31.3 %	16 - 100	B8D0152	04/04/2018	04/04/18 19:33



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-4-18"

Lab ID: 1801233-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.9	1.0	1	B8D0064	04/04/2018	04/04/18 15:50	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B8D0030	04/02/2018	04/03/18 16:49	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:56	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:56	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:56	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:56	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:56	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 15:56	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 15:56	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:56	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 15:56	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 15:56	
Surrogate: Decachlorobiphenyl	68.9 %	15 - 100		B8D0099	04/03/2018	04/03/18 15:56	
Surrogate: Tetrachloro-m-xylene	53.9 %	16 - 100		B8D0099	04/03/2018	04/03/18 15:56	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-4-30"

Lab ID: 1801233-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 15:51	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	1	B8D0030	04/02/2018	04/03/18 16:50	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:06	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:06	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:06	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:06	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:06	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 16:06	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:06	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:06	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 16:06	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 16:06	
Surrogate: Decachlorobiphenyl	59.9 %	15 - 100		B8D0099	04/03/2018	04/03/18 16:06	
Surrogate: Tetrachloro-m-xylene	50.0 %	16 - 100		B8D0099	04/03/2018	04/03/18 16:06	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-5-6"

Lab ID: 1801233-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.6	1.0	1	B8C0846	03/29/2018	03/29/18 13:24	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.0	1.0	1	B8D0030	04/02/2018	04/03/18 16:51	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:43	
4,4'-DDE [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:43	
4,4'-DDT [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:43	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:43	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:43	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Chlordane	ND	8.5	1	B8D0152	04/04/2018	04/04/18 19:43	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 19:43	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:43	
gamma-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 19:43	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 19:43	

Surrogate: Decachlorobiphenyl	37.2 %	15 - 100	B8D0152	04/04/2018	04/04/18 19:43
Surrogate: Tetrachloro-m-xylene	35.6 %	16 - 100	B8D0152	04/04/2018	04/04/18 19:43



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-5-18"

Lab ID: 1801233-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 15:55	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0030	04/02/2018	04/03/18 16:52	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:17	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:17	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:17	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:17	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:17	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 16:17	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:17	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:17	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 16:17	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 16:17	
Surrogate: Decachlorobiphenyl	70.5 %	15 - 100		B8D0099	04/03/2018	04/03/18 16:17	
Surrogate: Tetrachloro-m-xylene	57.0 %	16 - 100		B8D0099	04/03/2018	04/03/18 16:17	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-5-30"

Lab ID: 1801233-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 15:56	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0030	04/02/2018	04/03/18 16:53	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:27	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:27	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:27	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:27	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:27	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 16:27	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:27	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:27	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 16:27	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 16:27	

Surrogate: Decachlorobiphenyl	67.1 %	15 - 100	B8D0099	04/03/2018	04/03/18 16:27
Surrogate: Tetrachloro-m-xylene	63.4 %	16 - 100	B8D0099	04/03/2018	04/03/18 16:27



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-7-6"

Lab ID: 1801233-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	1	B8C0846	03/29/2018	03/29/18 13:25	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.4	1.0	1	B8D0030	04/02/2018	04/03/18 16:54	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	10	5	B8D0152	04/04/2018	04/04/18 19:54	D1
4,4'-DDE	ND	10	5	B8D0152	04/04/2018	04/04/18 19:54	D1
4,4'-DDT	ND	10	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Aldrin	ND	5.0	5	B8D0152	04/04/2018	04/04/18 19:54	D1
alpha-BHC	ND	5.0	5	B8D0152	04/04/2018	04/04/18 19:54	D1
alpha-Chlordane	ND	5.0	5	B8D0152	04/04/2018	04/04/18 19:54	D1
beta-BHC	ND	5.0	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Chlordane	ND	42	5	B8D0152	04/04/2018	04/04/18 19:54	D1
delta-BHC	ND	5.0	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Dieldrin	ND	10	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Endosulfan I	ND	5.0	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Endosulfan II	ND	10	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Endosulfan sulfate	ND	10	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Endrin	ND	10	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Endrin aldehyde	ND	10	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Endrin ketone	ND	10	5	B8D0152	04/04/2018	04/04/18 19:54	D1
gamma-BHC	ND	5.0	5	B8D0152	04/04/2018	04/04/18 19:54	D1
gamma-Chlordane	ND	5.0	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Heptachlor	ND	5.0	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Heptachlor epoxide	ND	5.0	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Methoxychlor	ND	25	5	B8D0152	04/04/2018	04/04/18 19:54	D1
Toxaphene	ND	250	5	B8D0152	04/04/2018	04/04/18 19:54	D1

Surrogate: Decachlorobiphenyl	22.0 %	15 - 100	B8D0152	04/04/2018	04/04/18 19:54
Surrogate: Tetrachloro-m-xylene	21.1 %	16 - 100	B8D0152	04/04/2018	04/04/18 19:54



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-7-18"

Lab ID: 1801233-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.3	1.0	1	B8D0064	04/04/2018	04/04/18 15:57	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.1	1.0	1	B8D0030	04/02/2018	04/03/18 16:54	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:38	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:38	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:38	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:38	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:38	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 16:38	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:38	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:38	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 16:38	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 16:38	

Surrogate: Decachlorobiphenyl	63.7 %	15 - 100	B8D0099	04/03/2018	04/03/18 16:38
Surrogate: Tetrachloro-m-xylene	58.3 %	16 - 100	B8D0099	04/03/2018	04/03/18 16:38



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-7-30"

Lab ID: 1801233-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	14	1.0	1	B8D0064	04/04/2018	04/04/18 15:58	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.4	1.0	1	B8D0030	04/02/2018	04/03/18 16:55	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:48	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:48	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:48	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:48	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:48	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 16:48	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:48	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:48	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 16:48	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 16:48	

Surrogate: Decachlorobiphenyl	59.8 %	15 - 100	B8D0099	04/03/2018	04/03/18 16:48
Surrogate: Tetrachloro-m-xylene	54.5 %	16 - 100	B8D0099	04/03/2018	04/03/18 16:48



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-10-6"

Lab ID: 1801233-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	18	1.0	1	B8C0846	03/29/2018	03/29/18 13:26	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.8	1.0	1	B8D0030	04/02/2018	04/03/18 16:58	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	10	5	B8D0152	04/04/2018	04/04/18 20:04	D1
4,4'-DDE [2C]	ND	10	5	B8D0152	04/04/2018	04/04/18 20:04	D1
4,4'-DDT	ND	10	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Aldrin	ND	5.0	5	B8D0152	04/04/2018	04/04/18 20:04	D1
alpha-BHC	ND	5.0	5	B8D0152	04/04/2018	04/04/18 20:04	D1
alpha-Chlordane	ND	5.0	5	B8D0152	04/04/2018	04/04/18 20:04	D1
beta-BHC	ND	5.0	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Chlordane	ND	42	5	B8D0152	04/04/2018	04/04/18 20:04	D1
delta-BHC	ND	5.0	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Dieldrin	ND	10	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Endosulfan I	ND	5.0	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Endosulfan II	ND	10	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Endosulfan sulfate	ND	10	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Endrin	ND	10	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Endrin aldehyde	ND	10	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Endrin ketone	ND	10	5	B8D0152	04/04/2018	04/04/18 20:04	D1
gamma-BHC	ND	5.0	5	B8D0152	04/04/2018	04/04/18 20:04	D1
gamma-Chlordane	ND	5.0	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Heptachlor	ND	5.0	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Heptachlor epoxide	ND	5.0	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Methoxychlor	ND	25	5	B8D0152	04/04/2018	04/04/18 20:04	D1
Toxaphene	ND	250	5	B8D0152	04/04/2018	04/04/18 20:04	D1

Surrogate: Decachlorobiphenyl 24.3 % 15 - 100 B8D0152 04/04/2018 04/04/18 20:04

Surrogate: Tetrachloro-m-xylene 18.2 % 16 - 100 B8D0152 04/04/2018 04/04/18 20:04



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-10-18"

Lab ID: 1801233-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 16:00	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	1	B8D0030	04/02/2018	04/03/18 16:59	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:59	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:59	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:59	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:59	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:59	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 16:59	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 16:59	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:59	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 16:59	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 16:59	

Surrogate: Decachlorobiphenyl	54.0 %	15 - 100	B8D0099	04/03/2018	04/03/18 16:59
Surrogate: Tetrachloro-m-xylene	53.2 %	16 - 100	B8D0099	04/03/2018	04/03/18 16:59



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-10-30"

Lab ID: 1801233-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 16:01	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	1	B8D0030	04/02/2018	04/03/18 16:59	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:09	
4,4'-DDE [2C]	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:09	
4,4'-DDT [2C]	6.3	2.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:09	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:09	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:09	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 17:09	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:09	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:09	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 17:09	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 17:09	

Surrogate: Decachlorobiphenyl 56.9 % 15 - 100 B8D0099 04/03/2018 04/03/18 17:09

Surrogate: Tetrachloro-m-xylene 58.6 % 16 - 100 B8D0099 04/03/2018 04/03/18 17:09



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-11-6"

Lab ID: 1801233-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.4	1.0	1	B8C0846	03/29/2018	03/29/18 13:27	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	100	5.0	5	B8D0030	04/02/2018	04/03/18 18:15	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:01	
4,4'-DDE	2.2	2.0	1	B8D0184	04/05/2018	04/06/18 10:01	
4,4'-DDT [2C]	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Aldrin	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:01	
alpha-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:01	
alpha-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:01	
beta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Chlordane	ND	8.5	1	B8D0184	04/05/2018	04/06/18 10:01	
delta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Dieldrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Endosulfan I	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Endosulfan II	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Endosulfan sulfate	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Endrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Endrin aldehyde	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Endrin ketone	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:01	
gamma-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:01	
gamma-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Heptachlor	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Heptachlor epoxide	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Methoxychlor	ND	5.0	1	B8D0184	04/05/2018	04/06/18 10:01	
Toxaphene	ND	50	1	B8D0184	04/05/2018	04/06/18 10:01	
Surrogate: Decachlorobiphenyl	54.8 %	15 - 100		B8D0184	04/05/2018	04/06/18 10:01	
Surrogate: Tetrachloro-m-xylene	50.6 %	16 - 100		B8D0184	04/05/2018	04/06/18 10:01	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-11-6"

Lab ID: 1801233-19

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0184	04/05/2018	04/06/18 10:55	
Aroclor 1221	ND	16	1	B8D0184	04/05/2018	04/06/18 10:55	
Aroclor 1232	ND	16	1	B8D0184	04/05/2018	04/06/18 10:55	
Aroclor 1242	ND	16	1	B8D0184	04/05/2018	04/06/18 10:55	
Aroclor 1248	ND	16	1	B8D0184	04/05/2018	04/06/18 10:55	
Aroclor 1254	ND	16	1	B8D0184	04/05/2018	04/06/18 10:55	
Aroclor 1260	ND	16	1	B8D0184	04/05/2018	04/06/18 10:55	
Aroclor 1262	ND	16	1	B8D0184	04/05/2018	04/06/18 10:55	
Aroclor 1268	ND	16	1	B8D0184	04/05/2018	04/06/18 10:55	
<i>Surrogate: Decachlorobiphenyl</i>	<i>59.7 %</i>	<i>14 - 109</i>		B8D0184	04/05/2018	04/06/18 10:55	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>55.6 %</i>	<i>18 - 114</i>		B8D0184	04/05/2018	04/06/18 10:55	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-11-18"

Lab ID: 1801233-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 16:02	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0030	04/02/2018	04/03/18 17:01	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:12	
4,4'-DDE	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:12	
4,4'-DDT	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Aldrin	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:12	
alpha-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:12	
alpha-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:12	
beta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Chlordane	ND	8.5	1	B8D0184	04/05/2018	04/06/18 10:12	
delta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Dieldrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Endosulfan I	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Endosulfan II	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Endosulfan sulfate	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Endrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Endrin aldehyde	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Endrin ketone	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:12	
gamma-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:12	
gamma-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Heptachlor	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Heptachlor epoxide	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Methoxychlor	ND	5.0	1	B8D0184	04/05/2018	04/06/18 10:12	
Toxaphene	ND	50	1	B8D0184	04/05/2018	04/06/18 10:12	
Surrogate: Decachlorobiphenyl	46.7 %	15 - 100		B8D0184	04/05/2018	04/06/18 10:12	
Surrogate: Tetrachloro-m-xylene	50.6 %	16 - 100		B8D0184	04/05/2018	04/06/18 10:12	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-11-18"

Lab ID: 1801233-20

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0184	04/05/2018	04/06/18 11:14	
Aroclor 1221	ND	16	1	B8D0184	04/05/2018	04/06/18 11:14	
Aroclor 1232	ND	16	1	B8D0184	04/05/2018	04/06/18 11:14	
Aroclor 1242	ND	16	1	B8D0184	04/05/2018	04/06/18 11:14	
Aroclor 1248	ND	16	1	B8D0184	04/05/2018	04/06/18 11:14	
Aroclor 1254	ND	16	1	B8D0184	04/05/2018	04/06/18 11:14	
Aroclor 1260	ND	16	1	B8D0184	04/05/2018	04/06/18 11:14	
Aroclor 1262	ND	16	1	B8D0184	04/05/2018	04/06/18 11:14	
Aroclor 1268	ND	16	1	B8D0184	04/05/2018	04/06/18 11:14	
<i>Surrogate: Decachlorobiphenyl</i>	<i>53.8 %</i>	<i>14 - 109</i>		B8D0184	04/05/2018	<i>04/06/18 11:14</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>59.1 %</i>	<i>18 - 114</i>		B8D0184	04/05/2018	<i>04/06/18 11:14</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-11-30"

Lab ID: 1801233-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 16:03	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0031	04/02/2018	04/03/18 17:04	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:22	
4,4'-DDE	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:22	
4,4'-DDT	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Aldrin	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:22	
alpha-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:22	
alpha-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:22	
beta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Chlordane	ND	8.5	1	B8D0184	04/05/2018	04/06/18 10:22	
delta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Dieldrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Endosulfan I	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Endosulfan II	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Endosulfan sulfate	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Endrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Endrin aldehyde	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Endrin ketone	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:22	
gamma-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:22	
gamma-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Heptachlor	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Heptachlor epoxide	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Methoxychlor	ND	5.0	1	B8D0184	04/05/2018	04/06/18 10:22	
Toxaphene	ND	50	1	B8D0184	04/05/2018	04/06/18 10:22	

Surrogate: Decachlorobiphenyl	46.6 %	15 - 100	B8D0184	04/05/2018	04/06/18 10:22
Surrogate: Tetrachloro-m-xylene	52.1 %	16 - 100	B8D0184	04/05/2018	04/06/18 10:22



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-11-30"

Lab ID: 1801233-21

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0184	04/05/2018	04/06/18 11:33	
Aroclor 1221	ND	16	1	B8D0184	04/05/2018	04/06/18 11:33	
Aroclor 1232	ND	16	1	B8D0184	04/05/2018	04/06/18 11:33	
Aroclor 1242	ND	16	1	B8D0184	04/05/2018	04/06/18 11:33	
Aroclor 1248	ND	16	1	B8D0184	04/05/2018	04/06/18 11:33	
Aroclor 1254	ND	16	1	B8D0184	04/05/2018	04/06/18 11:33	
Aroclor 1260	ND	16	1	B8D0184	04/05/2018	04/06/18 11:33	
Aroclor 1262	ND	16	1	B8D0184	04/05/2018	04/06/18 11:33	
Aroclor 1268	ND	16	1	B8D0184	04/05/2018	04/06/18 11:33	
<i>Surrogate: Decachlorobiphenyl</i>	<i>57.2 %</i>	<i>14 - 109</i>		B8D0184	04/05/2018	<i>04/06/18 11:33</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>61.5 %</i>	<i>18 - 114</i>		B8D0184	04/05/2018	<i>04/06/18 11:33</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-3-6"

Lab ID: 1801233-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.5	1.0	1	B8C0846	03/29/2018	03/29/18 13:28	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	1	B8D0031	04/02/2018	04/03/18 17:14	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:33	
4,4'-DDE	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:33	
4,4'-DDT [2C]	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Aldrin	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:33	
alpha-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:33	
alpha-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:33	
beta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Chlordane [2C]	ND	8.5	1	B8D0184	04/05/2018	04/06/18 10:33	
delta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Dieldrin [2C]	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Endosulfan I	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Endosulfan II	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Endosulfan sulfate	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Endrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Endrin aldehyde	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Endrin ketone	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:33	
gamma-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:33	
gamma-Chlordane [2C]	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Heptachlor	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Heptachlor epoxide	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Methoxychlor	ND	5.0	1	B8D0184	04/05/2018	04/06/18 10:33	
Toxaphene	ND	50	1	B8D0184	04/05/2018	04/06/18 10:33	
Surrogate: Decachlorobiphenyl	29.5 %	15 - 100		B8D0184	04/05/2018	04/06/18 10:33	
Surrogate: Tetrachloro-m-xylene	30.8 %	16 - 100		B8D0184	04/05/2018	04/06/18 10:33	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-3-6"

Lab ID: 1801233-22

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0184	04/05/2018	04/06/18 11:52	
Aroclor 1221	ND	16	1	B8D0184	04/05/2018	04/06/18 11:52	
Aroclor 1232	ND	16	1	B8D0184	04/05/2018	04/06/18 11:52	
Aroclor 1242	ND	16	1	B8D0184	04/05/2018	04/06/18 11:52	
Aroclor 1248	ND	16	1	B8D0184	04/05/2018	04/06/18 11:52	
Aroclor 1254	ND	16	1	B8D0184	04/05/2018	04/06/18 11:52	
Aroclor 1260	ND	16	1	B8D0184	04/05/2018	04/06/18 11:52	
Aroclor 1262	ND	16	1	B8D0184	04/05/2018	04/06/18 11:52	
Aroclor 1268	ND	16	1	B8D0184	04/05/2018	04/06/18 11:52	
<i>Surrogate: Decachlorobiphenyl</i>	<i>55.0 %</i>	<i>14 - 109</i>		B8D0184	04/05/2018	<i>04/06/18 11:52</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>52.4 %</i>	<i>18 - 114</i>		B8D0184	04/05/2018	<i>04/06/18 11:52</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-3-18"

Lab ID: 1801233-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.8	1.0	1	B8D0064	04/04/2018	04/04/18 16:04	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B8D0031	04/02/2018	04/03/18 17:15	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:43	
4,4'-DDE	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:43	
4,4'-DDT	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Aldrin	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:43	
alpha-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:43	
alpha-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:43	
beta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Chlordane	ND	8.5	1	B8D0184	04/05/2018	04/06/18 10:43	
delta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Dieldrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Endosulfan I	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Endosulfan II	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Endosulfan sulfate	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Endrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Endrin aldehyde	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Endrin ketone	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:43	
gamma-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:43	
gamma-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Heptachlor	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Heptachlor epoxide	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Methoxychlor	ND	5.0	1	B8D0184	04/05/2018	04/06/18 10:43	
Toxaphene	ND	50	1	B8D0184	04/05/2018	04/06/18 10:43	

Surrogate: Decachlorobiphenyl	51.2 %	15 - 100	B8D0184	04/05/2018	04/06/18 10:43
Surrogate: Tetrachloro-m-xylene	56.8 %	16 - 100	B8D0184	04/05/2018	04/06/18 10:43



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-3-18"

Lab ID: 1801233-23

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0184	04/05/2018	04/06/18 12:10	
Aroclor 1221	ND	16	1	B8D0184	04/05/2018	04/06/18 12:10	
Aroclor 1232	ND	16	1	B8D0184	04/05/2018	04/06/18 12:10	
Aroclor 1242	ND	16	1	B8D0184	04/05/2018	04/06/18 12:10	
Aroclor 1248	ND	16	1	B8D0184	04/05/2018	04/06/18 12:10	
Aroclor 1254	ND	16	1	B8D0184	04/05/2018	04/06/18 12:10	
Aroclor 1260	ND	16	1	B8D0184	04/05/2018	04/06/18 12:10	
Aroclor 1262	ND	16	1	B8D0184	04/05/2018	04/06/18 12:10	
Aroclor 1268	ND	16	1	B8D0184	04/05/2018	04/06/18 12:10	
<i>Surrogate: Decachlorobiphenyl</i>	<i>59.8 %</i>	<i>14 - 109</i>		B8D0184	04/05/2018	<i>04/06/18 12:10</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>57.6 %</i>	<i>18 - 114</i>		B8D0184	04/05/2018	<i>04/06/18 12:10</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-3-30"

Lab ID: 1801233-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0064	04/04/2018	04/04/18 16:05	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	1	B8D0031	04/02/2018	04/03/18 17:16	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:54	
4,4'-DDE	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:54	
4,4'-DDT	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Aldrin	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:54	
alpha-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:54	
alpha-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:54	
beta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Chlordane	ND	8.5	1	B8D0184	04/05/2018	04/06/18 10:54	
delta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Dieldrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Endosulfan I	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Endosulfan II	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Endosulfan sulfate	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Endrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Endrin aldehyde	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Endrin ketone	ND	2.0	1	B8D0184	04/05/2018	04/06/18 10:54	
gamma-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:54	
gamma-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Heptachlor	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Heptachlor epoxide	ND	1.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Methoxychlor	ND	5.0	1	B8D0184	04/05/2018	04/06/18 10:54	
Toxaphene	ND	50	1	B8D0184	04/05/2018	04/06/18 10:54	

Surrogate: Decachlorobiphenyl	46.8 %	15 - 100	B8D0184	04/05/2018	04/06/18 10:54
Surrogate: Tetrachloro-m-xylene	51.7 %	16 - 100	B8D0184	04/05/2018	04/06/18 10:54



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-3-30"

Lab ID: 1801233-24

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0184	04/05/2018	04/06/18 12:29	
Aroclor 1221	ND	16	1	B8D0184	04/05/2018	04/06/18 12:29	
Aroclor 1232	ND	16	1	B8D0184	04/05/2018	04/06/18 12:29	
Aroclor 1242	ND	16	1	B8D0184	04/05/2018	04/06/18 12:29	
Aroclor 1248	ND	16	1	B8D0184	04/05/2018	04/06/18 12:29	
Aroclor 1254	ND	16	1	B8D0184	04/05/2018	04/06/18 12:29	
Aroclor 1260	ND	16	1	B8D0184	04/05/2018	04/06/18 12:29	
Aroclor 1262	ND	16	1	B8D0184	04/05/2018	04/06/18 12:29	
Aroclor 1268	ND	16	1	B8D0184	04/05/2018	04/06/18 12:29	
<i>Surrogate: Decachlorobiphenyl</i>	<i>55.1 %</i>	<i>14 - 109</i>		B8D0184	04/05/2018	04/06/18 12:29	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>53.5 %</i>	<i>18 - 114</i>		B8D0184	04/05/2018	04/06/18 12:29	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-8-6"

Lab ID: 1801233-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	50	1.0	1	B8C0846	03/29/2018	03/29/18 13:30	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	1	B8D0031	04/02/2018	04/03/18 17:16	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:29	
4,4'-DDE	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:29	
4,4'-DDT	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:29	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:29	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:29	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Chlordane	ND	8.5	1	B8D0122	04/04/2018	04/04/18 14:29	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Dieldrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:29	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:29	
gamma-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 14:29	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 14:29	

Surrogate: Decachlorobiphenyl 43.5 % 15 - 100 B8D0122 04/04/2018 04/04/18 14:29

Surrogate: Tetrachloro-m-xylene 37.5 % 16 - 100 B8D0122 04/04/2018 04/04/18 14:29



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-8-18

Lab ID: 1801233-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.6	1.0	1	B8D0065	04/04/2018	04/04/18 16:16	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0031	04/02/2018	04/03/18 17:17	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:20	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:20	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:20	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:20	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:20	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 17:20	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:20	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:20	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 17:20	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 17:20	
Surrogate: Decachlorobiphenyl	64.7 %	15 - 100		B8D0099	04/03/2018	04/03/18 17:20	
Surrogate: Tetrachloro-m-xylene	55.9 %	16 - 100		B8D0099	04/03/2018	04/03/18 17:20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-8-30"

Lab ID: 1801233-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0065	04/04/2018	04/04/18 16:20	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B8D0031	04/02/2018	04/03/18 17:18	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:30	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:30	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:30	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:30	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:30	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 17:30	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:30	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:30	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 17:30	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 17:30	
Surrogate: Decachlorobiphenyl	49.3 %	15 - 100		B8D0099	04/03/2018	04/03/18 17:30	
Surrogate: Tetrachloro-m-xylene	42.4 %	16 - 100		B8D0099	04/03/2018	04/03/18 17:30	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-6-6"

Lab ID: 1801233-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	44	1.0	1	B8C0846	03/29/2018	03/29/18 13:33	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.4	1.0	1	B8D0031	04/02/2018	04/03/18 17:19	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	4.0	2	B8D0122	04/04/2018	04/04/18 14:40	
4,4'-DDE	44	4.0	2	B8D0122	04/04/2018	04/04/18 14:40	
4,4'-DDT [2C]	5.9	4.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Aldrin	ND	2.0	2	B8D0122	04/04/2018	04/04/18 14:40	
alpha-BHC	ND	2.0	2	B8D0122	04/04/2018	04/04/18 14:40	
alpha-Chlordane	11	2.0	2	B8D0122	04/04/2018	04/04/18 14:40	
beta-BHC	ND	2.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Chlordane	100	17	2	B8D0122	04/04/2018	04/04/18 14:40	
delta-BHC	ND	2.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Dieldrin [2C]	9.4	4.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Endosulfan I	ND	2.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Endosulfan II	ND	4.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Endosulfan sulfate	ND	4.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Endrin	ND	4.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Endrin aldehyde	ND	4.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Endrin ketone	ND	4.0	2	B8D0122	04/04/2018	04/04/18 14:40	
gamma-BHC	ND	2.0	2	B8D0122	04/04/2018	04/04/18 14:40	
gamma-Chlordane	11	2.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Heptachlor	ND	2.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Heptachlor epoxide	ND	2.0	2	B8D0122	04/04/2018	04/04/18 14:40	
Methoxychlor	ND	10	2	B8D0122	04/04/2018	04/04/18 14:40	
Toxaphene	ND	100	2	B8D0122	04/04/2018	04/04/18 14:40	
Surrogate: Decachlorobiphenyl	51.4 %	15 - 100		B8D0122	04/04/2018	04/04/18 14:40	
Surrogate: Tetrachloro-m-xylene	41.9 %	16 - 100		B8D0122	04/04/2018	04/04/18 14:40	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-6-18"

Lab ID: 1801233-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.1	1.0	1	B8D0065	04/04/2018	04/04/18 16:23	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.1	1.0	1	B8D0031	04/02/2018	04/03/18 17:20	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:40	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:40	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:40	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:40	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:40	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 17:40	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:40	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:40	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 17:40	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 17:40	

Surrogate: Decachlorobiphenyl 46.9 % 15 - 100 B8D0099 04/03/2018 04/03/18 17:40

Surrogate: Tetrachloro-m-xylene 40.1 % 16 - 100 B8D0099 04/03/2018 04/03/18 17:40



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-6-30"

Lab ID: 1801233-30

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0065	04/04/2018	04/04/18 16:24	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B8D0031	04/02/2018	04/03/18 17:21	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:51	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:51	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:51	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:51	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:51	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 17:51	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 17:51	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:51	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 17:51	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 17:51	

Surrogate: Decachlorobiphenyl	54.1 %	15 - 100	B8D0099	04/03/2018	04/03/18 17:51
Surrogate: Tetrachloro-m-xylene	43.2 %	16 - 100	B8D0099	04/03/2018	04/03/18 17:51



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-9-6"

Lab ID: 1801233-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.5	1.0	1	B8C0846	03/29/2018	03/29/18 13:34	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	1	B8D0031	04/02/2018	04/03/18 17:23	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:50	
4,4'-DDE [2C]	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:50	
4,4'-DDT	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Aldrin [2C]	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:50	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:50	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:50	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Chlordane [2C]	ND	8.5	1	B8D0122	04/04/2018	04/04/18 14:50	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Dieldrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:50	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:50	
gamma-Chlordane [2C]	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 14:50	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 14:50	

Surrogate: Decachlorobiphenyl 40.9 % 15 - 100 B8D0122 04/04/2018 04/04/18 14:50

Surrogate: Tetrachloro-m-xylene 39.5 % 16 - 100 B8D0122 04/04/2018 04/04/18 14:50



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-9-18"

Lab ID: 1801233-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.9	1.0	1	B8D0065	04/04/2018	04/04/18 16:26	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.8	1.0	1	B8D0031	04/02/2018	04/03/18 17:24	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:01	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:01	
4,4'-DDT [2C]	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:01	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:01	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:01	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 18:01	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:01	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:01	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 18:01	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 18:01	

Surrogate: Decachlorobiphenyl	53.5 %	15 - 100	B8D0099	04/03/2018	04/03/18 18:01
Surrogate: Tetrachloro-m-xylene	56.0 %	16 - 100	B8D0099	04/03/2018	04/03/18 18:01



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-9-30"

Lab ID: 1801233-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	44	1.0	1	B8D0065	04/04/2018	04/04/18 16:27	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	1	B8D0031	04/02/2018	04/03/18 17:25	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:12	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:12	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:12	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:12	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:12	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 18:12	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:12	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:12	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 18:12	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 18:12	

Surrogate: Decachlorobiphenyl	54.3 %	15 - 100	B8D0099	04/03/2018	04/03/18 18:12
Surrogate: Tetrachloro-m-xylene	53.7 %	16 - 100	B8D0099	04/03/2018	04/03/18 18:12



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-13-6"

Lab ID: 1801233-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8C0846	03/29/2018	03/29/18 13:36	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	1	B8D0031	04/02/2018	04/03/18 17:26	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:27	
4,4'-DDE	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:27	
4,4'-DDT	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:27	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:27	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:27	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Chlordane	ND	8.5	1	B8D0122	04/04/2018	04/04/18 13:27	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Dieldrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:27	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:27	
gamma-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 13:27	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 13:27	

Surrogate: Decachlorobiphenyl	62.4 %	15 - 100	B8D0122	04/04/2018	04/04/18 13:27
Surrogate: Tetrachloro-m-xylene	54.7 %	16 - 100	B8D0122	04/04/2018	04/04/18 13:27



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-13-18"

Lab ID: 1801233-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.7	1.0	1	B8D0065	04/04/2018	04/04/18 16:28	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	1	B8D0031	04/02/2018	04/03/18 17:26	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:22	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:22	
4,4'-DDT [2C]	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:22	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:22	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:22	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 18:22	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:22	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:22	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 18:22	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 18:22	
Surrogate: Decachlorobiphenyl	73.9 %	15 - 100		B8D0099	04/03/2018	04/03/18 18:22	
Surrogate: Tetrachloro-m-xylene	64.6 %	16 - 100		B8D0099	04/03/2018	04/03/18 18:22	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-13-30"

Lab ID: 1801233-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.6	1.0	1	B8D0065	04/04/2018	04/04/18 16:29	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	1	B8D0031	04/02/2018	04/03/18 17:27	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:33	
4,4'-DDE	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:33	
4,4'-DDT	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Aldrin	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:33	
alpha-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:33	
alpha-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:33	
beta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Chlordane	ND	8.5	1	B8D0099	04/03/2018	04/03/18 18:33	
delta-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Dieldrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Endosulfan I	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Endosulfan II	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Endosulfan sulfate	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Endrin	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Endrin aldehyde	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Endrin ketone	ND	2.0	1	B8D0099	04/03/2018	04/03/18 18:33	
gamma-BHC	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:33	
gamma-Chlordane	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Heptachlor	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Heptachlor epoxide	ND	1.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Methoxychlor	ND	5.0	1	B8D0099	04/03/2018	04/03/18 18:33	
Toxaphene	ND	50	1	B8D0099	04/03/2018	04/03/18 18:33	
Surrogate: Decachlorobiphenyl	63.2 %	15 - 100		B8D0099	04/03/2018	04/03/18 18:33	
Surrogate: Tetrachloro-m-xylene	57.7 %	16 - 100		B8D0099	04/03/2018	04/03/18 18:33	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-12-6"

Lab ID: 1801233-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	22	1.0	1	B8C0846	03/29/2018	03/29/18 13:37	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	1	B8D0031	04/02/2018	04/03/18 17:28	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	10	5	B8D0122	04/04/2018	04/04/18 15:00	D1
4,4'-DDE [2C]	ND	10	5	B8D0122	04/04/2018	04/04/18 15:00	D1
4,4'-DDT [2C]	ND	10	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Aldrin	ND	5.0	5	B8D0122	04/04/2018	04/04/18 15:00	D1
alpha-BHC	ND	5.0	5	B8D0122	04/04/2018	04/04/18 15:00	D1
alpha-Chlordane	ND	5.0	5	B8D0122	04/04/2018	04/04/18 15:00	D1
beta-BHC	ND	5.0	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Chlordane [2C]	ND	42	5	B8D0122	04/04/2018	04/04/18 15:00	D1
delta-BHC	ND	5.0	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Dieldrin	ND	10	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Endosulfan I	ND	5.0	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Endosulfan II	ND	10	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Endosulfan sulfate	ND	10	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Endrin	ND	10	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Endrin aldehyde	ND	10	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Endrin ketone	ND	10	5	B8D0122	04/04/2018	04/04/18 15:00	D1
gamma-BHC	ND	5.0	5	B8D0122	04/04/2018	04/04/18 15:00	D1
gamma-Chlordane [2C]	ND	5.0	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Heptachlor	ND	5.0	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Heptachlor epoxide	ND	5.0	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Methoxychlor	ND	25	5	B8D0122	04/04/2018	04/04/18 15:00	D1
Toxaphene	ND	250	5	B8D0122	04/04/2018	04/04/18 15:00	D1

Surrogate: Decachlorobiphenyl 40.4 % 15 - 100 B8D0122 04/04/2018 04/04/18 15:00

Surrogate: Tetrachloro-m-xylene 35.4 % 16 - 100 B8D0122 04/04/2018 04/04/18 15:00



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-12-18"

Lab ID: 1801233-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.2	1.0	1	B8D0065	04/04/2018	04/04/18 16:30	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	1	B8D0031	04/02/2018	04/03/18 17:29	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:15	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:15	
4,4'-DDT	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:15	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:15	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:15	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Chlordane	ND	8.5	1	B8D0152	04/04/2018	04/04/18 20:15	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:15	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:15	
gamma-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 20:15	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 20:15	

Surrogate: Decachlorobiphenyl 42.4 % 15 - 100 B8D0152 04/04/2018 04/04/18 20:15

Surrogate: Tetrachloro-m-xylene 43.5 % 16 - 100 B8D0152 04/04/2018 04/04/18 20:15



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-12-30"

Lab ID: 1801233-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0065	04/04/2018	04/04/18 16:31	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	1	B8D0031	04/02/2018	04/03/18 17:30	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:25	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:25	
4,4'-DDT	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:25	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:25	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:25	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Chlordane	ND	8.5	1	B8D0152	04/04/2018	04/04/18 20:25	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:25	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:25	
gamma-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 20:25	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 20:25	
Surrogate: Decachlorobiphenyl	44.4 %	15 - 100		B8D0152	04/04/2018	04/04/18 20:25	
Surrogate: Tetrachloro-m-xylene	50.8 %	16 - 100		B8D0152	04/04/2018	04/04/18 20:25	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-16-6"

Lab ID: 1801233-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.7	1.0	1	B8C0846	03/29/2018	03/29/18 13:38	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	1	B8D0031	04/02/2018	04/03/18 17:30	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 15:11	
4,4'-DDE	ND	2.0	1	B8D0122	04/04/2018	04/04/18 15:11	
4,4'-DDT	ND	2.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 15:11	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 15:11	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 15:11	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Chlordane	ND	8.5	1	B8D0122	04/04/2018	04/04/18 15:11	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Dieldrin [2C]	ND	2.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 15:11	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 15:11	
gamma-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 15:11	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 15:11	

Surrogate: Decachlorobiphenyl 35.7 % 15 - 100 B8D0122 04/04/2018 04/04/18 15:11

Surrogate: Tetrachloro-m-xylene 37.6 % 16 - 100 B8D0122 04/04/2018 04/04/18 15:11



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-16-18"

Lab ID: 1801233-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.8	1.0	1	B8D0065	04/04/2018	04/04/18 16:32	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	1	B8D0032	04/02/2018	04/03/18 17:35	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:44	
4,4'-DDE [2C]	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:44	
4,4'-DDT [2C]	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:44	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:44	
alpha-Chlordane [2C]	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:44	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Chlordane	ND	8.5	1	B8D0122	04/04/2018	04/04/18 16:44	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Dieldrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:44	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:44	
gamma-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 16:44	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 16:44	
Surrogate: Decachlorobiphenyl	47.1 %	15 - 100		B8D0122	04/04/2018	04/04/18 16:44	
Surrogate: Tetrachloro-m-xylene	48.2 %	16 - 100		B8D0122	04/04/2018	04/04/18 16:44	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-16-30"

Lab ID: 1801233-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.4	1.0	1	B8D0065	04/04/2018	04/04/18 16:33	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0032	04/02/2018	04/03/18 17:38	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:37	
4,4'-DDE	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:37	
4,4'-DDT	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:37	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:37	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:37	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Chlordane	ND	8.5	1	B8D0122	04/04/2018	04/04/18 13:37	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Dieldrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:37	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:37	
gamma-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 13:37	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 13:37	
Surrogate: Decachlorobiphenyl	72.6 %	15 - 100		B8D0122	04/04/2018	04/04/18 13:37	
Surrogate: Tetrachloro-m-xylene	65.0 %	16 - 100		B8D0122	04/04/2018	04/04/18 13:37	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-19-6"

Lab ID: 1801233-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.3	1.0	1	B8C0846	03/29/2018	03/29/18 13:39	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	1	B8D0032	04/02/2018	04/03/18 17:39	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:47	
4,4'-DDE [2C]	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:47	
4,4'-DDT [2C]	2.8	2.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:47	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:47	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:47	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Chlordane [2C]	ND	8.5	1	B8D0122	04/04/2018	04/04/18 13:47	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Dieldrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:47	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:47	
gamma-Chlordane [2C]	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 13:47	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 13:47	
Surrogate: Decachlorobiphenyl	74.8 %	15 - 100		B8D0122	04/04/2018	04/04/18 13:47	
Surrogate: Tetrachloro-m-xylene	79.2 %	16 - 100		B8D0122	04/04/2018	04/04/18 13:47	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-19-18"

Lab ID: 1801233-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.7	1.0	1	B8D0065	04/04/2018	04/04/18 16:37	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.0	1.0	1	B8D0032	04/02/2018	04/03/18 17:40	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:58	
4,4'-DDE [2C]	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:58	
4,4'-DDT	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:58	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:58	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:58	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Chlordane	ND	8.5	1	B8D0122	04/04/2018	04/04/18 13:58	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Dieldrin [2C]	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 13:58	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:58	
gamma-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 13:58	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 13:58	

Surrogate: Decachlorobiphenyl 57.8 % 15 - 100 B8D0122 04/04/2018 04/04/18 13:58

Surrogate: Tetrachloro-m-xylene 53.5 % 16 - 100 B8D0122 04/04/2018 04/04/18 13:58



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-19-30"

Lab ID: 1801233-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.8	1.0	1	B8D0065	04/04/2018	04/04/18 16:38	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.0	1.0	1	B8D0032	04/02/2018	04/03/18 17:40	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:55	
4,4'-DDE	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:55	
4,4'-DDT	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:55	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:55	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:55	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Chlordane	ND	8.5	1	B8D0122	04/04/2018	04/04/18 16:55	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Dieldrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 16:55	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:55	
gamma-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 16:55	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 16:55	

Surrogate: Decachlorobiphenyl 40.8 % 15 - 100 B8D0122 04/04/2018 04/04/18 16:55

Surrogate: Tetrachloro-m-xylene 34.2 % 16 - 100 B8D0122 04/04/2018 04/04/18 16:55



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-15-6"

Lab ID: 1801233-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.9	1.0	1	B8C0846	03/29/2018	03/29/18 13:40	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	1	B8D0032	04/02/2018	04/03/18 17:43	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 17:05	
4,4'-DDE	ND	2.0	1	B8D0122	04/04/2018	04/04/18 17:05	
4,4'-DDT [2C]	ND	2.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 17:05	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 17:05	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 17:05	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Chlordane	ND	8.5	1	B8D0122	04/04/2018	04/04/18 17:05	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Dieldrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 17:05	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 17:05	
gamma-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 17:05	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 17:05	

Surrogate: Decachlorobiphenyl	40.7 %	15 - 100	B8D0122	04/04/2018	04/04/18 17:05
Surrogate: Tetrachloro-m-xylene	37.7 %	16 - 100	B8D0122	04/04/2018	04/04/18 17:05



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-15-18"

Lab ID: 1801233-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0065	04/04/2018	04/04/18 16:39	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	1	B8D0032	04/02/2018	04/03/18 17:44	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:08	
4,4'-DDE	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:08	
4,4'-DDT	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:08	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:08	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:08	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Chlordane	ND	8.5	1	B8D0122	04/04/2018	04/04/18 14:08	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Dieldrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:08	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:08	
gamma-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 14:08	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 14:08	
Surrogate: Decachlorobiphenyl	65.5 %	15 - 100		B8D0122	04/04/2018	04/04/18 14:08	
Surrogate: Tetrachloro-m-xylene	67.9 %	16 - 100		B8D0122	04/04/2018	04/04/18 14:08	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-15-30

Lab ID: 1801233-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0065	04/04/2018	04/04/18 16:41	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	1	B8D0032	04/02/2018	04/03/18 17:45	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:19	
4,4'-DDE	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:19	
4,4'-DDT	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Aldrin	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:19	
alpha-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:19	
alpha-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:19	
beta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Chlordane	ND	8.5	1	B8D0122	04/04/2018	04/04/18 14:19	
delta-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Dieldrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Endosulfan I	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Endosulfan II	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Endosulfan sulfate	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Endrin	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Endrin aldehyde	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Endrin ketone	ND	2.0	1	B8D0122	04/04/2018	04/04/18 14:19	
gamma-BHC	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:19	
gamma-Chlordane	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Heptachlor	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Heptachlor epoxide	ND	1.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Methoxychlor	ND	5.0	1	B8D0122	04/04/2018	04/04/18 14:19	
Toxaphene	ND	50	1	B8D0122	04/04/2018	04/04/18 14:19	
Surrogate: Decachlorobiphenyl	42.5 %	15 - 100		B8D0122	04/04/2018	04/04/18 14:19	
Surrogate: Tetrachloro-m-xylene	42.6 %	16 - 100		B8D0122	04/04/2018	04/04/18 14:19	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-18-6"

Lab ID: 1801233-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.9	1.0	1	B8C0846	03/29/2018	03/29/18 13:41	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	1	B8D0032	04/02/2018	04/03/18 17:45	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:35	
4,4'-DDE [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:35	
4,4'-DDT [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:35	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:35	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:35	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Chlordane [2C]	ND	8.5	1	B8D0152	04/04/2018	04/04/18 20:35	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:35	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:35	
gamma-Chlordane [2C]	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 20:35	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 20:35	
Surrogate: Decachlorobiphenyl	40.9 %	15 - 100		B8D0152	04/04/2018	04/04/18 20:35	
Surrogate: Tetrachloro-m-xylene	46.2 %	16 - 100		B8D0152	04/04/2018	04/04/18 20:35	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-18-18"

Lab ID: 1801233-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	1	B8D0065	04/04/2018	04/04/18 16:42	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.9	1.0	1	B8D0032	04/02/2018	04/03/18 17:46	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:46	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:46	
4,4'-DDT [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:46	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:46	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:46	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Chlordane [2C]	ND	8.5	1	B8D0152	04/04/2018	04/04/18 20:46	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Dieldrin [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:46	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:46	
gamma-Chlordane [2C]	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 20:46	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 20:46	

Surrogate: Decachlorobiphenyl	40.1 %	15 - 100	B8D0152	04/04/2018	04/04/18 20:46
Surrogate: Tetrachloro-m-xylene	40.7 %	16 - 100	B8D0152	04/04/2018	04/04/18 20:46



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-18-30"

Lab ID: 1801233-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0065	04/04/2018	04/04/18 16:43	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0032	04/02/2018	04/03/18 17:47	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:56	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:56	
4,4'-DDT	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:56	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:56	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:56	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Chlordane	ND	8.5	1	B8D0152	04/04/2018	04/04/18 20:56	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 20:56	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:56	
gamma-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 20:56	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 20:56	
Surrogate: Decachlorobiphenyl	63.3 %	15 - 100		B8D0152	04/04/2018	04/04/18 20:56	
Surrogate: Tetrachloro-m-xylene	70.5 %	16 - 100		B8D0152	04/04/2018	04/04/18 20:56	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-17-6"

Lab ID: 1801233-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	20	1.0	1	B8C0846	03/29/2018	03/29/18 13:42	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.9	1.0	1	B8D0032	04/02/2018	04/03/18 17:48	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:07	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:07	
4,4'-DDT [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:07	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:07	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:07	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Chlordane [2C]	ND	8.5	1	B8D0152	04/04/2018	04/04/18 21:07	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Dieldrin [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:07	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:07	
gamma-Chlordane [2C]	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 21:07	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 21:07	

Surrogate: Decachlorobiphenyl 41.7 % 15 - 100 B8D0152 04/04/2018 04/04/18 21:07

Surrogate: Tetrachloro-m-xylene 43.2 % 16 - 100 B8D0152 04/04/2018 04/04/18 21:07



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-17-18"

Lab ID: 1801233-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.4	1.0	1	B8D0065	04/04/2018	04/04/18 16:44	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	1	B8D0032	04/02/2018	04/03/18 17:49	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:17	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:17	
4,4'-DDT [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:17	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:17	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:17	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Chlordane	ND	8.5	1	B8D0152	04/04/2018	04/04/18 21:17	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Dieldrin	2.2	2.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:17	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:17	
gamma-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 21:17	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 21:17	
Surrogate: Decachlorobiphenyl	31.5 %	15 - 100		B8D0152	04/04/2018	04/04/18 21:17	
Surrogate: Tetrachloro-m-xylene	30.9 %	16 - 100		B8D0152	04/04/2018	04/04/18 21:17	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-17-30"

Lab ID: 1801233-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.6	1.0	1	B8D0065	04/04/2018	04/04/18 16:45	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	1	B8D0032	04/02/2018	04/03/18 17:50	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:27	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:27	
4,4'-DDT [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:27	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:27	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:27	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Chlordane [2C]	ND	8.5	1	B8D0152	04/04/2018	04/04/18 21:27	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:27	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:27	
gamma-Chlordane [2C]	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 21:27	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 21:27	

Surrogate: Decachlorobiphenyl 37.9 % 15 - 100 B8D0152 04/04/2018 04/04/18 21:27

Surrogate: Tetrachloro-m-xylene 40.7 % 16 - 100 B8D0152 04/04/2018 04/04/18 21:27



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-29-6"

Lab ID: 1801233-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	37	1.0	1	B8C0846	03/29/2018	03/29/18 13:44	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	1	B8D0032	04/02/2018	04/03/18 17:50	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:38	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:38	
4,4'-DDT [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:38	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:38	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:38	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Chlordane	ND	8.5	1	B8D0152	04/04/2018	04/04/18 21:38	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:38	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:38	
gamma-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 21:38	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 21:38	

Surrogate: Decachlorobiphenyl 55.5 % 15 - 100 B8D0152 04/04/2018 04/04/18 21:38

Surrogate: Tetrachloro-m-xylene 51.1 % 16 - 100 B8D0152 04/04/2018 04/04/18 21:38



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-29-18"

Lab ID: 1801233-56

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	10	1.0	1	B8D0066	04/04/2018	04/04/18 16:51	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	1	B8D0032	04/02/2018	04/03/18 17:53	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:48	
4,4'-DDE	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:48	
4,4'-DDT	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:48	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:48	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:48	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Chlordane	ND	8.5	1	B8D0152	04/04/2018	04/04/18 21:48	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:48	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:48	
gamma-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 21:48	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 21:48	

Surrogate: Decachlorobiphenyl	51.7 %	15 - 100	B8D0152	04/04/2018	04/04/18 21:48
Surrogate: Tetrachloro-m-xylene	48.8 %	16 - 100	B8D0152	04/04/2018	04/04/18 21:48



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-29-30"

Lab ID: 1801233-57

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	15	1.0	1	B8D0066	04/04/2018	04/04/18 16:55	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	1	B8D0032	04/02/2018	04/03/18 17:54	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:59	
4,4'-DDE [2C]	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:59	
4,4'-DDT	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Aldrin	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:59	
alpha-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:59	
alpha-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:59	
beta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Chlordane	ND	8.5	1	B8D0152	04/04/2018	04/04/18 21:59	
delta-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Dieldrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Endosulfan I	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Endosulfan II	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Endosulfan sulfate	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Endrin	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Endrin aldehyde	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Endrin ketone	ND	2.0	1	B8D0152	04/04/2018	04/04/18 21:59	
gamma-BHC	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:59	
gamma-Chlordane	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Heptachlor	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Heptachlor epoxide	ND	1.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Methoxychlor	ND	5.0	1	B8D0152	04/04/2018	04/04/18 21:59	
Toxaphene	ND	50	1	B8D0152	04/04/2018	04/04/18 21:59	

Surrogate: Decachlorobiphenyl 50.9 % 15 - 100 B8D0152 04/04/2018 04/04/18 21:59

Surrogate: Tetrachloro-m-xylene 53.1 % 16 - 100 B8D0152 04/04/2018 04/04/18 21:59



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-28-6"

Lab ID: 1801233-58

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	54	1.0	1	B8C0846	03/29/2018	03/29/18 13:47	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	1	B8D0032	04/02/2018	04/03/18 17:55	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 12:44	
4,4'-DDE	ND	2.0	1	B8D0162	04/05/2018	04/05/18 12:44	
4,4'-DDT [2C]	ND	2.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 12:44	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 12:44	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 12:44	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 12:44	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 12:44	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 12:44	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 12:44	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 12:44	

Surrogate: Decachlorobiphenyl 59.6 % 15 - 100 B8D0162 04/05/2018 04/05/18 12:44

Surrogate: Tetrachloro-m-xylene 48.9 % 16 - 100 B8D0162 04/05/2018 04/05/18 12:44



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-28-18"

Lab ID: 1801233-59

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.0	1.0	1	B8D0066	04/04/2018	04/04/18 16:56	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	1	B8D0032	04/02/2018	04/03/18 17:55	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	4.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
4,4'-DDE	ND	4.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
4,4'-DDT	ND	4.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Aldrin	ND	2.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
alpha-BHC	ND	2.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
alpha-Chlordane	ND	2.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
beta-BHC	ND	2.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Chlordane	ND	17	2	B8D0162	04/05/2018	04/05/18 12:55	D1
delta-BHC	ND	2.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Dieldrin	ND	4.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Endosulfan I	ND	2.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Endosulfan II	ND	4.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Endosulfan sulfate	ND	4.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Endrin	ND	4.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Endrin aldehyde	ND	4.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Endrin ketone	ND	4.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
gamma-BHC	ND	2.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
gamma-Chlordane	ND	2.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Heptachlor	ND	2.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Heptachlor epoxide	ND	2.0	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Methoxychlor	ND	10	2	B8D0162	04/05/2018	04/05/18 12:55	D1
Toxaphene	ND	100	2	B8D0162	04/05/2018	04/05/18 12:55	D1

Surrogate: Decachlorobiphenyl	27.0 %	15 - 100	B8D0162	04/05/2018	04/05/18 12:55
Surrogate: Tetrachloro-m-xylene	18.2 %	16 - 100	B8D0162	04/05/2018	04/05/18 12:55



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-28-30"

Lab ID: 1801233-60

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0066	04/04/2018	04/04/18 16:57	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0032	04/02/2018	04/03/18 17:56	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:05	
4,4'-DDE	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:05	
4,4'-DDT	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:05	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:05	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:05	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 13:05	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:05	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:05	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 13:05	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 13:05	

Surrogate: Decachlorobiphenyl	63.8 %	15 - 100	B8D0162	04/05/2018	04/05/18 13:05
Surrogate: Tetrachloro-m-xylene	54.2 %	16 - 100	B8D0162	04/05/2018	04/05/18 13:05



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-27-6"

Lab ID: 1801233-61

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	17	1.0	1	B8C0847	03/29/2018	03/29/18 12:53	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	32	1.0	1	B8D0034	04/02/2018	04/03/18 17:59	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:54	
4,4'-DDE	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:54	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:54	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:54	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:54	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 11:54	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:54	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:54	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 11:54	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 11:54	

Surrogate: Decachlorobiphenyl	46.5 %	15 - 100	B8D0218	04/06/2018	04/09/18 11:54
Surrogate: Tetrachloro-m-xylene	48.9 %	16 - 100	B8D0218	04/06/2018	04/09/18 11:54



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-27-18"

Lab ID: 1801233-62

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	13	1.0	1	B8D0066	04/04/2018	04/04/18 16:58	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	1	B8D0034	04/02/2018	04/03/18 18:04	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:15	
4,4'-DDE [2C]	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:15	
4,4'-DDT	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:15	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:15	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:15	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 13:15	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:15	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:15	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 13:15	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 13:15	

Surrogate: Decachlorobiphenyl 46.9 % 15 - 100 B8D0162 04/05/2018 04/05/18 13:15

Surrogate: Tetrachloro-m-xylene 43.1 % 16 - 100 B8D0162 04/05/2018 04/05/18 13:15



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-27-30"

Lab ID: 1801233-63

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	14	1.0	1	B8D0066	04/04/2018	04/04/18 16:59	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	1	B8D0034	04/02/2018	04/03/18 18:05	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:26	
4,4'-DDE	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:26	
4,4'-DDT	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:26	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:26	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:26	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 13:26	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:26	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:26	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 13:26	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 13:26	

Surrogate: Decachlorobiphenyl	53.5 %	15 - 100	B8D0162	04/05/2018	04/05/18 13:26
Surrogate: Tetrachloro-m-xylene	55.7 %	16 - 100	B8D0162	04/05/2018	04/05/18 13:26



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-32-6"

Lab ID: 1801233-64

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	32	1.0	1	B8C0847	03/29/2018	03/29/18 12:56	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B8D0034	04/02/2018	04/04/18 08:03	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:04	
4,4'-DDE [2C]	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:04	
4,4'-DDT [2C]	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:04	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:04	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:04	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 12:04	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:04	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:04	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 12:04	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 12:04	

Surrogate: Decachlorobiphenyl 50.6 % 15 - 100 B8D0218 04/06/2018 04/09/18 12:04

Surrogate: Tetrachloro-m-xylene 51.2 % 16 - 100 B8D0218 04/06/2018 04/09/18 12:04



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-32-18"

Lab ID: 1801233-65

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	27	1.0	1	B8D0066	04/04/2018	04/04/18 17:00	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	1	B8D0034	04/02/2018	04/03/18 18:06	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:36	
4,4'-DDE	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:36	
4,4'-DDT [2C]	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:36	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:36	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:36	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 13:36	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:36	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:36	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 13:36	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 13:36	

Surrogate: Decachlorobiphenyl 52.9 % 15 - 100 B8D0162 04/05/2018 04/05/18 13:36

Surrogate: Tetrachloro-m-xylene 52.5 % 16 - 100 B8D0162 04/05/2018 04/05/18 13:36



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-32-30"

Lab ID: 1801233-66

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0066	04/04/2018	04/04/18 17:01	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	1	B8D0034	04/02/2018	04/03/18 18:07	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:47	
4,4'-DDE	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:47	
4,4'-DDT	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:47	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:47	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:47	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 13:47	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:47	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:47	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 13:47	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 13:47	
Surrogate: Decachlorobiphenyl	58.7 %	15 - 100		B8D0162	04/05/2018	04/05/18 13:47	
Surrogate: Tetrachloro-m-xylene	56.6 %	16 - 100		B8D0162	04/05/2018	04/05/18 13:47	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-31-6"

Lab ID: 1801233-67

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	19	1.0	1	B8C0847	03/29/2018	03/29/18 12:58	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.3	1.0	1	B8D0034	04/02/2018	04/03/18 18:08	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	ND	10	5	B8D0186	04/06/2018	04/09/18 12:25	D1
4,4'-DDE [2C]	ND	10	5	B8D0186	04/06/2018	04/09/18 12:25	D1
4,4'-DDT [2C]	ND	10	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Aldrin	ND	5.0	5	B8D0186	04/06/2018	04/09/18 12:25	D1
alpha-BHC	ND	5.0	5	B8D0186	04/06/2018	04/09/18 12:25	D1
alpha-Chlordane	ND	5.0	5	B8D0186	04/06/2018	04/09/18 12:25	D1
beta-BHC	ND	5.0	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Chlordane [2C]	ND	42	5	B8D0186	04/06/2018	04/09/18 12:25	D1
delta-BHC	ND	5.0	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Dieldrin	ND	10	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Endosulfan I	ND	5.0	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Endosulfan II	ND	10	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Endosulfan sulfate	ND	10	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Endrin	ND	10	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Endrin aldehyde	ND	10	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Endrin ketone	ND	10	5	B8D0186	04/06/2018	04/09/18 12:25	D1
gamma-BHC	ND	5.0	5	B8D0186	04/06/2018	04/09/18 12:25	D1
gamma-Chlordane [2C]	ND	5.0	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Heptachlor	ND	5.0	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Heptachlor epoxide	ND	5.0	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Methoxychlor	ND	25	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Toxaphene	ND	250	5	B8D0186	04/06/2018	04/09/18 12:25	D1
Surrogate: Decachlorobiphenyl	32.7 %	15 - 100		B8D0186	04/06/2018	04/09/18 12:25	D1
Surrogate: Tetrachloro-m-xylene	30.5 %	16 - 100		B8D0186	04/06/2018	04/09/18 12:25	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-31-6"

Lab ID: 1801233-67

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0186	04/06/2018	04/08/18 14:15	
Aroclor 1221	ND	16	1	B8D0186	04/06/2018	04/08/18 14:15	
Aroclor 1232	ND	16	1	B8D0186	04/06/2018	04/08/18 14:15	
Aroclor 1242	ND	16	1	B8D0186	04/06/2018	04/08/18 14:15	
Aroclor 1248	ND	16	1	B8D0186	04/06/2018	04/08/18 14:15	
Aroclor 1254	ND	16	1	B8D0186	04/06/2018	04/08/18 14:15	
Aroclor 1260	ND	16	1	B8D0186	04/06/2018	04/08/18 14:15	
Aroclor 1262	ND	16	1	B8D0186	04/06/2018	04/08/18 14:15	
Aroclor 1268	ND	16	1	B8D0186	04/06/2018	04/08/18 14:15	
<i>Surrogate: Decachlorobiphenyl</i>	<i>57.9 %</i>	<i>14 - 109</i>		B8D0186	04/06/2018	<i>04/08/18 14:15</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>50.2 %</i>	<i>18 - 114</i>		B8D0186	04/06/2018	<i>04/08/18 14:15</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-31-18

Lab ID: 1801233-68

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	16	1.0	1	B8D0066	04/04/2018	04/04/18 17:05	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	1	B8D0034	04/02/2018	04/03/18 18:09	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0184	04/05/2018	04/06/18 11:04	
4,4'-DDE [2C]	ND	2.0	1	B8D0184	04/05/2018	04/06/18 11:04	
4,4'-DDT	ND	2.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Aldrin	ND	1.0	1	B8D0184	04/05/2018	04/06/18 11:04	
alpha-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 11:04	
alpha-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 11:04	
beta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Chlordane [2C]	ND	8.5	1	B8D0184	04/05/2018	04/06/18 11:04	
delta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Dieldrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Endosulfan I	ND	1.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Endosulfan II	ND	2.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Endosulfan sulfate	ND	2.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Endrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Endrin aldehyde	ND	2.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Endrin ketone	ND	2.0	1	B8D0184	04/05/2018	04/06/18 11:04	
gamma-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 11:04	
gamma-Chlordane [2C]	ND	1.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Heptachlor	ND	1.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Heptachlor epoxide	ND	1.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Methoxychlor	ND	5.0	1	B8D0184	04/05/2018	04/06/18 11:04	
Toxaphene	ND	50	1	B8D0184	04/05/2018	04/06/18 11:04	

Surrogate: Decachlorobiphenyl 34.2 % 15 - 100 B8D0184 04/05/2018 04/06/18 11:04

Surrogate: Tetrachloro-m-xylene 38.2 % 16 - 100 B8D0184 04/05/2018 04/06/18 11:04



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-31-18

Lab ID: 1801233-68

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0184	04/05/2018	04/06/18 12:48	
Aroclor 1221	ND	16	1	B8D0184	04/05/2018	04/06/18 12:48	
Aroclor 1232	ND	16	1	B8D0184	04/05/2018	04/06/18 12:48	
Aroclor 1242	ND	16	1	B8D0184	04/05/2018	04/06/18 12:48	
Aroclor 1248	ND	16	1	B8D0184	04/05/2018	04/06/18 12:48	
Aroclor 1254	ND	16	1	B8D0184	04/05/2018	04/06/18 12:48	
Aroclor 1260	ND	16	1	B8D0184	04/05/2018	04/06/18 12:48	
Aroclor 1262	ND	16	1	B8D0184	04/05/2018	04/06/18 12:48	
Aroclor 1268	ND	16	1	B8D0184	04/05/2018	04/06/18 12:48	
<i>Surrogate: Decachlorobiphenyl</i>	<i>60.4 %</i>	<i>14 - 109</i>		B8D0184	04/05/2018	04/06/18 12:48	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>65.7 %</i>	<i>18 - 114</i>		B8D0184	04/05/2018	04/06/18 12:48	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-31-30"

Lab ID: 1801233-69

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0066	04/04/2018	04/04/18 17:06	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.1	1.0	1	B8D0034	04/02/2018	04/03/18 18:10	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:34	
4,4'-DDE	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:34	
4,4'-DDT	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Aldrin	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:34	
alpha-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:34	
alpha-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:34	
beta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Chlordane	ND	8.5	1	B8D0184	04/05/2018	04/06/18 15:34	
delta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Dieldrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Endosulfan I	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Endosulfan II	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Endosulfan sulfate	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Endrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Endrin aldehyde	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Endrin ketone	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:34	
gamma-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:34	
gamma-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Heptachlor	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Heptachlor epoxide	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Methoxychlor	ND	5.0	1	B8D0184	04/05/2018	04/06/18 15:34	
Toxaphene	ND	50	1	B8D0184	04/05/2018	04/06/18 15:34	

Surrogate: Decachlorobiphenyl	56.8 %	15 - 100	B8D0184	04/05/2018	04/06/18 15:34
Surrogate: Tetrachloro-m-xylene	55.7 %	16 - 100	B8D0184	04/05/2018	04/06/18 15:34



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-31-30"

Lab ID: 1801233-69

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0184	04/05/2018	04/06/18 09:41	
Aroclor 1221	ND	16	1	B8D0184	04/05/2018	04/06/18 09:41	
Aroclor 1232	ND	16	1	B8D0184	04/05/2018	04/06/18 09:41	
Aroclor 1242	ND	16	1	B8D0184	04/05/2018	04/06/18 09:41	
Aroclor 1248	ND	16	1	B8D0184	04/05/2018	04/06/18 09:41	
Aroclor 1254	ND	16	1	B8D0184	04/05/2018	04/06/18 09:41	
Aroclor 1260	ND	16	1	B8D0184	04/05/2018	04/06/18 09:41	
Aroclor 1262	ND	16	1	B8D0184	04/05/2018	04/06/18 09:41	
Aroclor 1268	ND	16	1	B8D0184	04/05/2018	04/06/18 09:41	
<i>Surrogate: Decachlorobiphenyl</i>	<i>59.5 %</i>	<i>14 - 109</i>		B8D0184	04/05/2018	<i>04/06/18 09:41</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>64.6 %</i>	<i>18 - 114</i>		B8D0184	04/05/2018	<i>04/06/18 09:41</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-30-6"

Lab ID: 1801233-70

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	58	1.0	1	B8C0847	03/29/2018	03/29/18 12:59	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	1	B8D0034	04/02/2018	04/03/18 18:10	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:15	
4,4'-DDE	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:15	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:15	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:15	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:15	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 12:15	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 12:15	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:15	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 12:15	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 12:15	

Surrogate: Decachlorobiphenyl 50.6 % 15 - 100 B8D0218 04/06/2018 04/09/18 12:15

Surrogate: Tetrachloro-m-xylene 51.3 % 16 - 100 B8D0218 04/06/2018 04/09/18 12:15



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-30-18"

Lab ID: 1801233-71

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0066	04/04/2018	04/04/18 17:07	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B8D0034	04/02/2018	04/03/18 18:13	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:57	
4,4'-DDE	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:57	
4,4'-DDT	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:57	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:57	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:57	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 13:57	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 13:57	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:57	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 13:57	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 13:57	

Surrogate: Decachlorobiphenyl	56.8 %	15 - 100	B8D0162	04/05/2018	04/05/18 13:57
Surrogate: Tetrachloro-m-xylene	57.9 %	16 - 100	B8D0162	04/05/2018	04/05/18 13:57



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-30-30"

Lab ID: 1801233-72

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0066	04/04/2018	04/04/18 17:09	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	1	B8D0034	04/02/2018	04/03/18 18:14	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 14:08	
4,4'-DDE	ND	2.0	1	B8D0162	04/05/2018	04/05/18 14:08	
4,4'-DDT	ND	2.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 14:08	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 14:08	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 14:08	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 14:08	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 14:08	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 14:08	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 14:08	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 14:08	
Surrogate: Decachlorobiphenyl	55.7 %	15 - 100		B8D0162	04/05/2018	04/05/18 14:08	
Surrogate: Tetrachloro-m-xylene	59.2 %	16 - 100		B8D0162	04/05/2018	04/05/18 14:08	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B8C0846 - EPA 3050B_S										
Blank (B8C0846-BLK1)					Prepared: 3/29/2018 Analyzed: 3/29/2018					
Lead	ND	1.0	0.18							
LCS (B8C0846-BS1)					Prepared: 3/29/2018 Analyzed: 3/29/2018					
Lead	46.4866	1.0	0.18	50.0000		93.0	80 - 120			
Matrix Spike (B8C0846-MS1)					Source: 1801233-01 Prepared: 3/29/2018 Analyzed: 3/29/2018					
Lead	87.1020	1.0	0.18	125.000	0.468525	69.3	36 - 121			
Matrix Spike Dup (B8C0846-MSD1)					Source: 1801233-01 Prepared: 3/29/2018 Analyzed: 3/29/2018					
Lead	88.9238	1.0	0.18	125.000	0.468525	70.8	36 - 121	2.07	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8C0847 - EPA 3050B_S

Blank (B8C0847-BLK1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

Lead	ND	1.0	0.18							
------	----	-----	------	--	--	--	--	--	--	--

LCS (B8C0847-BS1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

Lead	48.5647	1.0	0.18	50.0000		97.1	80 - 120			
------	---------	-----	------	---------	--	------	----------	--	--	--

Matrix Spike (B8C0847-MS1)

Source: 1801233-61

Prepared: 3/29/2018 Analyzed: 3/29/2018

Lead	111.408	1.0	0.18	125.000	16.6481	75.8	36 - 121			
------	---------	-----	------	---------	---------	------	----------	--	--	--

Matrix Spike Dup (B8C0847-MSD1)

Source: 1801233-61

Prepared: 3/29/2018 Analyzed: 3/29/2018

Lead	113.441	1.0	0.18	125.000	16.6481	77.4	36 - 121	1.81	20	
------	---------	-----	------	---------	---------	------	----------	------	----	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0064 - EPA 3050B_S

Blank (B8D0064-BLK1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	ND	1.0	0.18							
------	----	-----	------	--	--	--	--	--	--	--

LCS (B8D0064-BS1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	44.8612	1.0	0.18	50.0000		89.7	80 - 120			
------	---------	-----	------	---------	--	------	----------	--	--	--

Matrix Spike (B8D0064-MS1)

Source: 1801233-02

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	72.9888	1.0	0.18	125.000	ND	58.4	36 - 121			
------	---------	-----	------	---------	----	------	----------	--	--	--

Matrix Spike Dup (B8D0064-MSD1)

Source: 1801233-02

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	83.9522	1.0	0.18	125.000	ND	67.2	36 - 121	14.0	20	
------	---------	-----	------	---------	----	------	----------	------	----	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0065 - EPA 3050B_S

Blank (B8D0065-BLK1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	ND	1.0	0.18							
------	----	-----	------	--	--	--	--	--	--	--

LCS (B8D0065-BS1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	44.1823	1.0	0.18	50.0000		88.4	80 - 120			
------	---------	-----	------	---------	--	------	----------	--	--	--

Matrix Spike (B8D0065-MS1)

Source: 1801233-26

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	91.7033	1.0	0.18	125.628	6.59872	67.7	36 - 121			
------	---------	-----	------	---------	---------	------	----------	--	--	--

Matrix Spike Dup (B8D0065-MSD1)

Source: 1801233-26

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	92.2121	1.0	0.18	125.000	6.59872	68.5	36 - 121	0.553	20	
------	---------	-----	------	---------	---------	------	----------	-------	----	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0066 - EPA 3050B_S

Blank (B8D0066-BLK1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	ND	1.0	0.18							
------	----	-----	------	--	--	--	--	--	--	--

LCS (B8D0066-BS1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	43.4372	1.0	0.18	50.0000		86.9	80 - 120			
------	---------	-----	------	---------	--	------	----------	--	--	--

Matrix Spike (B8D0066-MS1)

Source: 1801233-56

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	89.6136	1.0	0.18	125.000	9.97404	63.7	36 - 121			
------	---------	-----	------	---------	---------	------	----------	--	--	--

Matrix Spike Dup (B8D0066-MSD1)

Source: 1801233-56

Prepared: 4/4/2018 Analyzed: 4/4/2018

Lead	86.9493	1.0	0.18	125.000	9.97404	61.6	36 - 121	3.02	20	
------	---------	-----	------	---------	---------	------	----------	------	----	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0030 - EPA 3050B MS_S

Blank (B8D0030-BLK1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	ND	0.25	0.01
---------	----	------	------

LCS (B8D0030-BS1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	3.70263	0.25	0.01	5.00000	74.1	70 - 130
---------	---------	------	------	---------	------	----------

Matrix Spike (B8D0030-MS1)

Source: 1801233-01

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	5.28070	1.0	0.04	5.00000	1.22909	81.0	75 - 125
---------	---------	-----	------	---------	---------	------	----------

Matrix Spike Dup (B8D0030-MSD1)

Source: 1801233-01

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	5.48400	1.0	0.04	5.00000	1.22909	85.1	75 - 125	3.78	20
---------	---------	-----	------	---------	---------	------	----------	------	----

Post Spike (B8D0030-PS1)

Source: 1801233-01

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	4.86928			5.00000	0.614547	85.1	75 - 125
---------	---------	--	--	---------	----------	------	----------



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0031 - EPA 3050B MS_S

Blank (B8D0031-BLK1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	ND	0.25	0.01
---------	----	------	------

LCS (B8D0031-BS1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	3.73081	0.25	0.01	5.00000	74.6	70 - 130
---------	---------	------	------	---------	------	----------

Matrix Spike (B8D0031-MS1)

Source: 1801233-21

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	5.01355	1.0	0.04	5.00000	0.762092	85.0	75 - 125
---------	---------	-----	------	---------	----------	------	----------

Matrix Spike Dup (B8D0031-MSD1)

Source: 1801233-21

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	4.99031	1.0	0.04	5.00000	0.762092	84.6	75 - 125	0.465	20
---------	---------	-----	------	---------	----------	------	----------	-------	----

Post Spike (B8D0031-PS1)

Source: 1801233-21

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	4.78954			5.00000	0.381046	88.2	75 - 125
---------	---------	--	--	---------	----------	------	----------



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0032 - EPA 3050B MS_S

Blank (B8D0032-BLK1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	ND	0.25	0.01
---------	----	------	------

LCS (B8D0032-BS1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	3.72648	0.25	0.01	5.00000	74.5	70 - 130
---------	---------	------	------	---------	------	----------

Matrix Spike (B8D0032-MS1)

Source: 1801233-41

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	5.65272	1.0	0.04	5.00000	1.35242	86.0	75 - 125
---------	---------	-----	------	---------	---------	------	----------

Matrix Spike Dup (B8D0032-MSD1)

Source: 1801233-41

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	5.63501	1.0	0.04	5.00000	1.35242	85.7	75 - 125	0.314	20
---------	---------	-----	------	---------	---------	------	----------	-------	----

Post Spike (B8D0032-PS1)

Source: 1801233-41

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	4.89417			5.00000	0.676210	84.4	75 - 125
---------	---------	--	--	---------	----------	------	----------



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0034 - EPA 3050B MS_S

Blank (B8D0034-BLK1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	ND	0.25	0.01
---------	----	------	------

LCS (B8D0034-BS1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	3.61188	0.25	0.01	5.00000	72.2	70 - 130
---------	---------	------	------	---------	------	----------

Matrix Spike (B8D0034-MS1)

Source: 1801233-61

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	32.1213	1.0	0.04	5.00000	31.6078	10.3	75 - 125			M1
---------	---------	-----	------	---------	---------	------	----------	--	--	----

Matrix Spike Dup (B8D0034-MSD1)

Source: 1801233-61

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	33.2093	1.0	0.04	5.00000	31.6078	32.0	75 - 125	3.33	20	M1
---------	---------	-----	------	---------	---------	------	----------	------	----	----

Post Spike (B8D0034-PS1)

Source: 1801233-61

Prepared: 4/2/2018 Analyzed: 4/3/2018

Arsenic	19.9304			5.00000	15.8039	82.5	75 - 125
---------	---------	--	--	---------	---------	------	----------



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0099 - GCSEMI_PCB/PEST_S

Blank (B8D0099-BLK1)

Prepared: 4/3/2018 Analyzed: 4/3/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0099 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0099-BLK1) - Continued

Prepared: 4/3/2018 Analyzed: 4/3/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>13.21</i>			<i>16.6667</i>	<i>79.3</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>12.60</i>			<i>16.6667</i>	<i>75.6</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.13</i>			<i>16.6667</i>	<i>78.8</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>12.85</i>			<i>16.6667</i>	<i>77.1</i>	<i>16 - 100</i>

LCS (B8D0099-BS1)

Prepared: 4/3/2018 Analyzed: 4/3/2018

4,4'-DDD	14.6808	2.0	0.10	16.6667	88.1	62 - 129
4,4'-DDD [2C]	14.5947	2.0	0.10	16.6667	87.6	62 - 129
4,4'-DDE	15.1883	2.0	0.07	16.6667	91.1	65 - 117
4,4'-DDE [2C]	14.4500	2.0	0.07	16.6667	86.7	65 - 117
4,4'-DDT	13.4500	2.0	0.14	16.6667	80.7	35 - 136
4,4'-DDT [2C]	13.7650	2.0	0.14	16.6667	82.6	35 - 136
Aldrin	14.6152	1.0	0.08	16.6667	87.7	67 - 110
Aldrin [2C]	13.9685	1.0	0.08	16.6667	83.8	67 - 110
alpha-BHC	14.0978	1.0	0.04	16.6667	84.6	69 - 110
alpha-BHC [2C]	13.3833	1.0	0.04	16.6667	80.3	69 - 110
alpha-Chlordane	14.4522	1.0	0.04	16.6667	86.7	65 - 114
alpha-Chlordane [2C]	13.9690	1.0	0.04	16.6667	83.8	65 - 114
beta-BHC	13.7502	1.0	0.04	16.6667	82.5	64 - 108
beta-BHC [2C]	13.3748	1.0	0.04	16.6667	80.2	64 - 108
delta-BHC	11.2178	1.0	0.04	16.6667	67.3	44 - 110
delta-BHC [2C]	10.7853	1.0	0.04	16.6667	64.7	44 - 110
Dieldrin	13.6173	2.0	0.05	16.6667	81.7	63 - 107
Dieldrin [2C]	13.4350	2.0	0.05	16.6667	80.6	63 - 107
Endosulfan I	14.0243	1.0	0.04	16.6667	84.1	63 - 103
Endosulfan I [2C]	13.5453	1.0	0.04	16.6667	81.3	63 - 103
Endosulfan II	14.5637	2.0	0.10	16.6667	87.4	62 - 122
Endosulfan II [2C]	14.5527	2.0	0.10	16.6667	87.3	62 - 122
Endosulfan sulfate	14.1703	2.0	0.06	16.6667	85.0	53 - 127
Endosulfan Sulfate [2C]	13.9837	2.0	0.06	16.6667	83.9	53 - 127
Endrin	14.7070	2.0	0.08	16.6667	88.2	66 - 120
Endrin [2C]	14.4953	2.0	0.08	16.6667	87.0	66 - 120
Endrin aldehyde	15.9860	2.0	0.09	16.6667	95.9	67 - 121
Endrin aldehyde [2C]	15.1735	2.0	0.09	16.6667	91.0	67 - 121
Endrin ketone	14.1603	2.0	0.07	16.6667	85.0	41 - 146
Endrin ketone [2C]	14.3645	2.0	0.07	16.6667	86.2	41 - 146
gamma-BHC	13.7410	1.0	0.05	16.6667	82.4	67 - 109
gamma-BHC [2C]	13.1385	1.0	0.05	16.6667	78.8	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0099 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0099-BS1) - Continued

Prepared: 4/3/2018 Analyzed: 4/3/2018

gamma-Chlordane	14.0992	1.0	0.04	16.6667		84.6	63 - 110		
gamma-Chlordane [2C]	13.6777	1.0	0.04	16.6667		82.1	63 - 110		
Heptachlor	14.5978	1.0	0.07	16.6667		87.6	67 - 120		
Heptachlor [2C]	14.4180	1.0	0.07	16.6667		86.5	67 - 120		
Heptachlor epoxide	13.8353	1.0	0.04	16.6667		83.0	62 - 108		
Heptachlor epoxide [2C]	13.5032	1.0	0.04	16.6667		81.0	62 - 108		
Methoxychlor	14.4795	5.0	0.10	16.6667		86.9	47 - 152		
Methoxychlor [2C]	15.3967	5.0	0.10	16.6667		92.4	47 - 152		
Surrogate: Decachlorobiphenyl	13.02			16.6667		78.1	15 - 100		
Surrogate: Decachlorobiphenyl [	12.46			16.6667		74.8	15 - 100		
Surrogate: Tetrachloro-m-xylene	12.94			16.6667		77.6	16 - 100		
Surrogate: Tetrachloro-m-xylene	13.19			16.6667		79.1	16 - 100		

Matrix Spike (B8D0099-MS1)

Source: 1801233-33

Prepared: 4/3/2018 Analyzed: 4/3/2018

4,4'-DDD	12.7153	2.0	0.10	16.6667	ND	76.3	0 - 127		
4,4'-DDD [2C]	11.9993	2.0	0.10	16.6667	ND	72.0	0 - 127		
4,4'-DDE	12.6738	2.0	0.07	16.6667	ND	76.0	0 - 125		
4,4'-DDE [2C]	11.8640	2.0	0.07	16.6667	ND	71.2	0 - 125		
4,4'-DDT	11.8143	2.0	0.14	16.6667	ND	70.9	0 - 103		
4,4'-DDT [2C]	11.7873	2.0	0.14	16.6667	ND	70.7	0 - 103		
Aldrin	11.7250	1.0	0.08	16.6667	ND	70.3	6 - 104		
Aldrin [2C]	11.2707	1.0	0.08	16.6667	ND	67.6	6 - 104		
alpha-BHC	12.1430	1.0	0.04	16.6667	ND	72.9	0 - 114		
alpha-BHC [2C]	11.2742	1.0	0.04	16.6667	ND	67.6	0 - 114		
alpha-Chlordane	12.1165	1.0	0.04	16.6667	ND	72.7	0 - 110		
alpha-Chlordane [2C]	11.5273	1.0	0.04	16.6667	ND	69.2	0 - 110		
beta-BHC	12.1948	1.0	0.04	16.6667	ND	73.2	0 - 129		
beta-BHC [2C]	11.4293	1.0	0.04	16.6667	ND	68.6	0 - 129		
delta-BHC	9.22500	1.0	0.04	16.6667	ND	55.3	18 - 99		
delta-BHC [2C]	9.22283	1.0	0.04	16.6667	ND	55.3	18 - 99		
Dieldrin	11.3977	2.0	0.05	16.6667	ND	68.4	0 - 124		
Dieldrin [2C]	11.1032	2.0	0.05	16.6667	ND	66.6	0 - 124		
Endosulfan I	11.5353	1.0	0.04	16.6667	ND	69.2	0 - 106		
Endosulfan I [2C]	10.9732	1.0	0.04	16.6667	ND	65.8	0 - 106		
Endosulfan II	12.6027	2.0	0.10	16.6667	ND	75.6	20 - 130		
Endosulfan II [2C]	11.6143	2.0	0.10	16.6667	ND	69.7	20 - 130		
Endosulfan sulfate	12.3073	2.0	0.06	16.6667	ND	73.8	24 - 119		
Endosulfan Sulfate [2C]	10.4552	2.0	0.06	16.6667	ND	62.7	24 - 119		
Endrin	12.6638	2.0	0.08	16.6667	ND	76.0	0 - 135		
Endrin [2C]	12.0927	2.0	0.08	16.6667	ND	72.6	0 - 135		
Endrin aldehyde	13.0037	2.0	0.09	16.6667	ND	78.0	19 - 132		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0099 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0099-MS1) - Continued

Source: 1801233-33

Prepared: 4/3/2018 Analyzed: 4/3/2018

Endrin aldehyde [2C]	10.1333	2.0	0.09	16.6667	ND	60.8	19 - 132		
Endrin ketone	11.9823	2.0	0.07	16.6667	ND	71.9	7 - 141		
Endrin ketone [2C]	12.0368	2.0	0.07	16.6667	ND	72.2	7 - 141		
gamma-BHC	11.7323	1.0	0.05	16.6667	ND	70.4	0 - 117		
gamma-BHC [2C]	11.1233	1.0	0.05	16.6667	ND	66.7	0 - 117		
gamma-Chlordane	11.8560	1.0	0.04	16.6667	ND	71.1	0 - 156		
gamma-Chlordane [2C]	10.1968	1.0	0.04	16.6667	ND	61.2	0 - 156		
Heptachlor	11.7865	1.0	0.07	16.6667	ND	70.7	3 - 112		
Heptachlor [2C]	11.6542	1.0	0.07	16.6667	ND	69.9	3 - 112		
Heptachlor epoxide	11.1972	1.0	0.04	16.6667	ND	67.2	0 - 118		
Heptachlor epoxide [2C]	10.8858	1.0	0.04	16.6667	ND	65.3	0 - 118		
Methoxychlor	13.4462	5.0	0.10	16.6667	ND	80.7	0 - 161		
Methoxychlor [2C]	13.3275	5.0	0.10	16.6667	ND	80.0	0 - 161		

Surrogate: Decachlorobiphenyl	10.77			16.6667		64.6	15 - 100		
Surrogate: Decachlorobiphenyl [	10.66			16.6667		63.9	15 - 100		
Surrogate: Tetrachloro-m-xylene	10.77			16.6667		64.6	16 - 100		
Surrogate: Tetrachloro-m-xylene	10.98			16.6667		65.9	16 - 100		

Matrix Spike Dup (B8D0099-MSD1)

Source: 1801233-33

Prepared: 4/3/2018 Analyzed: 4/3/2018

4,4'-DDD	12.6833	2.0	0.10	16.6667	ND	76.1	0 - 127	0.252	20
4,4'-DDD [2C]	12.0502	2.0	0.10	16.6667	ND	72.3	0 - 127	0.423	20
4,4'-DDE	12.6672	2.0	0.07	16.6667	ND	76.0	0 - 125	0.0526	20
4,4'-DDE [2C]	11.9413	2.0	0.07	16.6667	ND	71.6	0 - 125	0.650	20
4,4'-DDT	11.8242	2.0	0.14	16.6667	ND	70.9	0 - 103	0.0833	20
4,4'-DDT [2C]	11.8447	2.0	0.14	16.6667	ND	71.1	0 - 103	0.485	20
Aldrin	11.7548	1.0	0.08	16.6667	ND	70.5	6 - 104	0.254	20
Aldrin [2C]	11.3768	1.0	0.08	16.6667	ND	68.3	6 - 104	0.938	20
alpha-BHC	12.0823	1.0	0.04	16.6667	ND	72.5	0 - 114	0.501	20
alpha-BHC [2C]	11.3670	1.0	0.04	16.6667	ND	68.2	0 - 114	0.820	20
alpha-Chlordane	12.1242	1.0	0.04	16.6667	ND	72.7	0 - 110	0.0633	20
alpha-Chlordane [2C]	11.6042	1.0	0.04	16.6667	ND	69.6	0 - 110	0.664	20
beta-BHC	12.1720	1.0	0.04	16.6667	ND	73.0	0 - 129	0.187	20
beta-BHC [2C]	11.5023	1.0	0.04	16.6667	ND	69.0	0 - 129	0.637	20
delta-BHC	9.17733	1.0	0.04	16.6667	ND	55.1	18 - 99	0.518	20
delta-BHC [2C]	9.27033	1.0	0.04	16.6667	ND	55.6	18 - 99	0.514	20
Dieldrin	11.4050	2.0	0.05	16.6667	ND	68.4	0 - 124	0.0643	20
Dieldrin [2C]	11.1415	2.0	0.05	16.6667	ND	66.8	0 - 124	0.345	20
Endosulfan I	11.5085	1.0	0.04	16.6667	ND	69.1	0 - 106	0.233	20
Endosulfan I [2C]	10.9468	1.0	0.04	16.6667	ND	65.7	0 - 106	0.240	20
Endosulfan II	12.6898	2.0	0.10	16.6667	ND	76.1	20 - 130	0.689	20
Endosulfan II [2C]	11.5970	2.0	0.10	16.6667	ND	69.6	20 - 130	0.149	20



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0099 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0099-MSD1) - Continued

Source: 1801233-33

Prepared: 4/3/2018 Analyzed: 4/3/2018

Endosulfan sulfate	12.0280	2.0	0.06	16.6667	ND	72.2	24 - 119	2.30	20	
Endosulfan Sulfate [2C]	10.3622	2.0	0.06	16.6667	ND	62.2	24 - 119	0.893	20	
Endrin	12.6290	2.0	0.08	16.6667	ND	75.8	0 - 135	0.275	20	
Endrin [2C]	12.1223	2.0	0.08	16.6667	ND	72.7	0 - 135	0.245	20	
Endrin aldehyde	13.0443	2.0	0.09	16.6667	ND	78.3	19 - 132	0.312	20	
Endrin aldehyde [2C]	10.0988	2.0	0.09	16.6667	ND	60.6	19 - 132	0.341	20	
Endrin ketone	11.9662	2.0	0.07	16.6667	ND	71.8	7 - 141	0.135	20	
Endrin ketone [2C]	12.4338	2.0	0.07	16.6667	ND	74.6	7 - 141	3.24	20	
gamma-BHC	11.7122	1.0	0.05	16.6667	ND	70.3	0 - 117	0.172	20	
gamma-BHC [2C]	11.2185	1.0	0.05	16.6667	ND	67.3	0 - 117	0.852	20	
gamma-Chlordane	11.8603	1.0	0.04	16.6667	ND	71.2	0 - 156	0.0365	20	
gamma-Chlordane [2C]	10.2230	1.0	0.04	16.6667	ND	61.3	0 - 156	0.256	20	
Heptachlor	11.7580	1.0	0.07	16.6667	ND	70.5	3 - 112	0.242	20	
Heptachlor [2C]	11.7305	1.0	0.07	16.6667	ND	70.4	3 - 112	0.653	20	
Heptachlor epoxide	11.1720	1.0	0.04	16.6667	ND	67.0	0 - 118	0.225	20	
Heptachlor epoxide [2C]	10.9530	1.0	0.04	16.6667	ND	65.7	0 - 118	0.615	20	
Methoxychlor	14.3658	5.0	0.10	16.6667	ND	86.2	0 - 161	6.61	20	
Methoxychlor [2C]	13.4307	5.0	0.10	16.6667	ND	80.6	0 - 161	0.771	20	
Surrogate: Decachlorobiphenyl	11.32			16.6667		67.9	15 - 100			
Surrogate: Decachlorobiphenyl [	10.19			16.6667		61.1	15 - 100			
Surrogate: Tetrachloro-m-xylene	10.77			16.6667		64.6	16 - 100			
Surrogate: Tetrachloro-m-xylene	11.10			16.6667		66.6	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0122 - GCSEMI_PCB/PEST_S

Blank (B8D0122-BLK1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0122 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0122-BLK1) - Continued

Prepared: 4/4/2018 Analyzed: 4/4/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>12.99</i>			<i>16.6667</i>	<i>77.9</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>12.38</i>			<i>16.6667</i>	<i>74.3</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>12.73</i>			<i>16.6667</i>	<i>76.4</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>12.48</i>			<i>16.6667</i>	<i>74.9</i>	<i>16 - 100</i>

LCS (B8D0122-BS1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

4,4'-DDD	13.4457	2.0	0.10	16.6667	80.7	62 - 129
4,4'-DDD [2C]	13.4608	2.0	0.10	16.6667	80.8	62 - 129
4,4'-DDE	14.2048	2.0	0.07	16.6667	85.2	65 - 117
4,4'-DDE [2C]	13.7633	2.0	0.07	16.6667	82.6	65 - 117
4,4'-DDT	13.2962	2.0	0.14	16.6667	79.8	35 - 136
4,4'-DDT [2C]	13.6895	2.0	0.14	16.6667	82.1	35 - 136
Aldrin	13.7432	1.0	0.08	16.6667	82.5	67 - 110
Aldrin [2C]	13.2562	1.0	0.08	16.6667	79.5	67 - 110
alpha-BHC	13.5028	1.0	0.04	16.6667	81.0	69 - 110
alpha-BHC [2C]	12.8913	1.0	0.04	16.6667	77.3	69 - 110
alpha-Chlordane	13.5307	1.0	0.04	16.6667	81.2	65 - 114
alpha-Chlordane [2C]	13.2695	1.0	0.04	16.6667	79.6	65 - 114
beta-BHC	13.0055	1.0	0.04	16.6667	78.0	64 - 108
beta-BHC [2C]	12.7200	1.0	0.04	16.6667	76.3	64 - 108
delta-BHC	10.5483	1.0	0.04	16.6667	63.3	44 - 110
delta-BHC [2C]	10.2313	1.0	0.04	16.6667	61.4	44 - 110
Dieldrin	12.7255	2.0	0.05	16.6667	76.4	63 - 107
Dieldrin [2C]	12.7353	2.0	0.05	16.6667	76.4	63 - 107
Endosulfan I	13.0710	1.0	0.04	16.6667	78.4	63 - 103
Endosulfan I [2C]	12.7725	1.0	0.04	16.6667	76.6	63 - 103
Endosulfan II	13.6018	2.0	0.10	16.6667	81.6	62 - 122
Endosulfan II [2C]	13.7198	2.0	0.10	16.6667	82.3	62 - 122
Endosulfan sulfate	13.1788	2.0	0.06	16.6667	79.1	53 - 127
Endosulfan Sulfate [2C]	13.2720	2.0	0.06	16.6667	79.6	53 - 127
Endrin	14.0480	2.0	0.08	16.6667	84.3	66 - 120
Endrin [2C]	14.0370	2.0	0.08	16.6667	84.2	66 - 120
Endrin aldehyde	14.9075	2.0	0.09	16.6667	89.4	67 - 121
Endrin aldehyde [2C]	14.3133	2.0	0.09	16.6667	85.9	67 - 121
Endrin ketone	13.3332	2.0	0.07	16.6667	80.0	41 - 146
Endrin ketone [2C]	13.6817	2.0	0.07	16.6667	82.1	41 - 146
gamma-BHC	13.0818	1.0	0.05	16.6667	78.5	67 - 109
gamma-BHC [2C]	12.5878	1.0	0.05	16.6667	75.5	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0122 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0122-BS1) - Continued

Prepared: 4/4/2018 Analyzed: 4/4/2018

gamma-Chlordane	13.1912	1.0	0.04	16.6667		79.1	63 - 110		
gamma-Chlordane [2C]	12.8557	1.0	0.04	16.6667		77.1	63 - 110		
Heptachlor	13.6513	1.0	0.07	16.6667		81.9	67 - 120		
Heptachlor [2C]	13.5445	1.0	0.07	16.6667		81.3	67 - 120		
Heptachlor epoxide	12.8503	1.0	0.04	16.6667		77.1	62 - 108		
Heptachlor epoxide [2C]	12.7267	1.0	0.04	16.6667		76.4	62 - 108		
Methoxychlor	14.5238	5.0	0.10	16.6667		87.1	47 - 152		
Methoxychlor [2C]	15.6397	5.0	0.10	16.6667		93.8	47 - 152		
Surrogate: Decachlorobiphenyl	12.68			16.6667		76.1	15 - 100		
Surrogate: Decachlorobiphenyl [	12.44			16.6667		74.7	15 - 100		
Surrogate: Tetrachloro-m-xylene	12.56			16.6667		75.3	16 - 100		
Surrogate: Tetrachloro-m-xylene	12.85			16.6667		77.1	16 - 100		

Matrix Spike (B8D0122-MS1)

Source: 1801317-02

Prepared: 4/4/2018 Analyzed: 4/4/2018

4,4'-DDD	12.5437	2.0	0.10	16.6667	ND	75.3	0 - 127		
4,4'-DDD [2C]	12.0112	2.0	0.10	16.6667	ND	72.1	0 - 127		
4,4'-DDE	13.1137	2.0	0.07	16.6667	0.325833	76.7	0 - 125		
4,4'-DDE [2C]	12.2190	2.0	0.07	16.6667	0.287000	71.6	0 - 125		
4,4'-DDT	12.2143	2.0	0.14	16.6667	ND	73.3	0 - 103		
4,4'-DDT [2C]	12.3118	2.0	0.14	16.6667	ND	73.9	0 - 103		
Aldrin	12.1813	1.0	0.08	16.6667	ND	73.1	6 - 104		
Aldrin [2C]	12.0082	1.0	0.08	16.6667	ND	72.0	6 - 104		
alpha-BHC	12.5782	1.0	0.04	16.6667	ND	75.5	0 - 114		
alpha-BHC [2C]	12.4910	1.0	0.04	16.6667	ND	74.9	0 - 114		
alpha-Chlordane	12.4405	1.0	0.04	16.6667	ND	74.6	0 - 110		
alpha-Chlordane [2C]	11.7893	1.0	0.04	16.6667	ND	70.7	0 - 110		
beta-BHC	12.2615	1.0	0.04	16.6667	ND	73.6	0 - 129		
beta-BHC [2C]	12.4240	1.0	0.04	16.6667	ND	74.5	0 - 129		
delta-BHC	9.41317	1.0	0.04	16.6667	ND	56.5	18 - 99		
delta-BHC [2C]	9.62617	1.0	0.04	16.6667	ND	57.8	18 - 99		
Dieldrin	11.6943	2.0	0.05	16.6667	0.208833	68.9	0 - 124		
Dieldrin [2C]	11.4018	2.0	0.05	16.6667	0.209167	67.2	0 - 124		
Endosulfan I	11.8573	1.0	0.04	16.6667	ND	71.1	0 - 106		
Endosulfan I [2C]	11.1362	1.0	0.04	16.6667	ND	66.8	0 - 106		
Endosulfan II	12.5860	2.0	0.10	16.6667	ND	75.5	20 - 130		
Endosulfan II [2C]	11.9690	2.0	0.10	16.6667	ND	71.8	20 - 130		
Endosulfan sulfate	12.4762	2.0	0.06	16.6667	ND	74.9	24 - 119		
Endosulfan Sulfate [2C]	10.9877	2.0	0.06	16.6667	ND	65.9	24 - 119		
Endrin	12.8738	2.0	0.08	16.6667	ND	77.2	0 - 135		
Endrin [2C]	12.4145	2.0	0.08	16.6667	ND	74.5	0 - 135		
Endrin aldehyde	13.1858	2.0	0.09	16.6667	ND	79.1	19 - 132		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0122 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0122-MS1) - Continued

Source: 1801317-02

Prepared: 4/4/2018 Analyzed: 4/4/2018

Endrin aldehyde [2C]	10.7255	2.0	0.09	16.6667	ND	64.4	19 - 132		
Endrin ketone	12.2585	2.0	0.07	16.6667	ND	73.6	7 - 141		
Endrin ketone [2C]	12.2478	2.0	0.07	16.6667	ND	73.5	7 - 141		
gamma-BHC	11.9922	1.0	0.05	16.6667	ND	72.0	0 - 117		
gamma-BHC [2C]	11.8405	1.0	0.05	16.6667	ND	71.0	0 - 117		
gamma-Chlordane	12.1810	1.0	0.04	16.6667	ND	73.1	0 - 156		
gamma-Chlordane [2C]	10.7653	1.0	0.04	16.6667	ND	64.6	0 - 156		
Heptachlor	12.2560	1.0	0.07	16.6667	ND	73.5	3 - 112		
Heptachlor [2C]	12.2447	1.0	0.07	16.6667	ND	73.5	3 - 112		
Heptachlor epoxide	11.6667	1.0	0.04	16.6667	ND	70.0	0 - 118		
Heptachlor epoxide [2C]	11.1142	1.0	0.04	16.6667	ND	66.7	0 - 118		
Methoxychlor	15.8713	5.0	0.10	16.6667	ND	95.2	0 - 161		
Methoxychlor [2C]	13.7953	5.0	0.10	16.6667	ND	82.8	0 - 161		

Surrogate: Decachlorobiphenyl	10.75			16.6667		64.5	15 - 100		
Surrogate: Decachlorobiphenyl [	10.09			16.6667		60.5	15 - 100		
Surrogate: Tetrachloro-m-xylene	11.13			16.6667		66.8	16 - 100		
Surrogate: Tetrachloro-m-xylene	11.96			16.6667		71.7	16 - 100		

Matrix Spike Dup (B8D0122-MSD1)

Source: 1801317-02

Prepared: 4/4/2018 Analyzed: 4/4/2018

4,4'-DDD	12.3198	2.0	0.10	16.6667	ND	73.9	0 - 127	1.80	20
4,4'-DDD [2C]	11.9592	2.0	0.10	16.6667	ND	71.8	0 - 127	0.434	20
4,4'-DDE	12.8283	2.0	0.07	16.6667	0.325833	75.0	0 - 125	2.20	20
4,4'-DDE [2C]	12.1832	2.0	0.07	16.6667	0.287000	71.4	0 - 125	0.294	20
4,4'-DDT	12.1057	2.0	0.14	16.6667	ND	72.6	0 - 103	0.894	20
4,4'-DDT [2C]	12.3282	2.0	0.14	16.6667	ND	74.0	0 - 103	0.133	20
Aldrin	11.9773	1.0	0.08	16.6667	ND	71.9	6 - 104	1.69	20
Aldrin [2C]	11.7285	1.0	0.08	16.6667	ND	70.4	6 - 104	2.36	20
alpha-BHC	12.4963	1.0	0.04	16.6667	ND	75.0	0 - 114	0.653	20
alpha-BHC [2C]	12.5207	1.0	0.04	16.6667	ND	75.1	0 - 114	0.237	20
alpha-Chlordane	12.1862	1.0	0.04	16.6667	ND	73.1	0 - 110	2.07	20
alpha-Chlordane [2C]	11.7253	1.0	0.04	16.6667	ND	70.4	0 - 110	0.544	20
beta-BHC	12.2453	1.0	0.04	16.6667	ND	73.5	0 - 129	0.132	20
beta-BHC [2C]	12.3520	1.0	0.04	16.6667	ND	74.1	0 - 129	0.581	20
delta-BHC	9.34983	1.0	0.04	16.6667	ND	56.1	18 - 99	0.675	20
delta-BHC [2C]	9.62983	1.0	0.04	16.6667	ND	57.8	18 - 99	0.0381	20
Dieldrin	11.4917	2.0	0.05	16.6667	0.208833	67.7	0 - 124	1.75	20
Dieldrin [2C]	11.3447	2.0	0.05	16.6667	0.209167	66.8	0 - 124	0.503	20
Endosulfan I	11.5907	1.0	0.04	16.6667	ND	69.5	0 - 106	2.27	20
Endosulfan I [2C]	11.0992	1.0	0.04	16.6667	ND	66.6	0 - 106	0.333	20
Endosulfan II	12.5563	2.0	0.10	16.6667	ND	75.3	20 - 130	0.236	20
Endosulfan II [2C]	11.9017	2.0	0.10	16.6667	ND	71.4	20 - 130	0.564	20



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0122 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0122-MSD1) - Continued

Source: 1801317-02

Prepared: 4/4/2018 Analyzed: 4/4/2018

Endosulfan sulfate	12.3433	2.0	0.06	16.6667	ND	74.1	24 - 119	1.07	20	
Endosulfan Sulfate [2C]	10.8870	2.0	0.06	16.6667	ND	65.3	24 - 119	0.920	20	
Endrin	12.6812	2.0	0.08	16.6667	ND	76.1	0 - 135	1.51	20	
Endrin [2C]	12.3810	2.0	0.08	16.6667	ND	74.3	0 - 135	0.270	20	
Endrin aldehyde	13.0932	2.0	0.09	16.6667	ND	78.6	19 - 132	0.705	20	
Endrin aldehyde [2C]	10.7418	2.0	0.09	16.6667	ND	64.5	19 - 132	0.152	20	
Endrin ketone	12.1383	2.0	0.07	16.6667	ND	72.8	7 - 141	0.985	20	
Endrin ketone [2C]	12.6945	2.0	0.07	16.6667	ND	76.2	7 - 141	3.58	20	
gamma-BHC	11.9702	1.0	0.05	16.6667	ND	71.8	0 - 117	0.184	20	
gamma-BHC [2C]	11.8935	1.0	0.05	16.6667	ND	71.4	0 - 117	0.447	20	
gamma-Chlordane	11.9575	1.0	0.04	16.6667	ND	71.7	0 - 156	1.85	20	
gamma-Chlordane [2C]	10.5067	1.0	0.04	16.6667	ND	63.0	0 - 156	2.43	20	
Heptachlor	12.0450	1.0	0.07	16.6667	ND	72.3	3 - 112	1.74	20	
Heptachlor [2C]	12.0695	1.0	0.07	16.6667	ND	72.4	3 - 112	1.44	20	
Heptachlor epoxide	11.4867	1.0	0.04	16.6667	ND	68.9	0 - 118	1.55	20	
Heptachlor epoxide [2C]	10.9467	1.0	0.04	16.6667	ND	65.7	0 - 118	1.52	20	
Methoxychlor	15.9985	5.0	0.10	16.6667	ND	96.0	0 - 161	0.798	20	
Methoxychlor [2C]	13.8832	5.0	0.10	16.6667	ND	83.3	0 - 161	0.635	20	
Surrogate: Decachlorobiphenyl	10.39			16.6667		62.4	15 - 100			
Surrogate: Decachlorobiphenyl [	9.564			16.6667		57.4	15 - 100			
Surrogate: Tetrachloro-m-xylene	10.84			16.6667		65.0	16 - 100			
Surrogate: Tetrachloro-m-xylene	12.04			16.6667		72.2	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0152 - GCSEMI_PCB/PEST_S

Blank (B8D0152-BLK1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0152 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0152-BLK1) - Continued

Prepared: 4/4/2018 Analyzed: 4/4/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>12.43</i>			<i>16.6667</i>	<i>74.6</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.50</i>			<i>16.6667</i>	<i>69.0</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.66</i>			<i>16.6667</i>	<i>82.0</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.37</i>			<i>16.6667</i>	<i>80.2</i>	<i>16 - 100</i>

LCS (B8D0152-BS1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

4,4'-DDD	14.6882	2.0	0.10	16.6667	88.1	62 - 129
4,4'-DDD [2C]	14.5153	2.0	0.10	16.6667	87.1	62 - 129
4,4'-DDE	14.7905	2.0	0.07	16.6667	88.7	65 - 117
4,4'-DDE [2C]	13.9635	2.0	0.07	16.6667	83.8	65 - 117
4,4'-DDT	11.5538	2.0	0.14	16.6667	69.3	35 - 136
4,4'-DDT [2C]	11.9453	2.0	0.14	16.6667	71.7	35 - 136
Aldrin	14.3452	1.0	0.08	16.6667	86.1	67 - 110
Aldrin [2C]	13.5840	1.0	0.08	16.6667	81.5	67 - 110
alpha-BHC	13.9463	1.0	0.04	16.6667	83.7	69 - 110
alpha-BHC [2C]	13.1733	1.0	0.04	16.6667	79.0	69 - 110
alpha-Chlordane	14.0912	1.0	0.04	16.6667	84.5	65 - 114
alpha-Chlordane [2C]	13.5273	1.0	0.04	16.6667	81.2	65 - 114
beta-BHC	13.7233	1.0	0.04	16.6667	82.3	64 - 108
beta-BHC [2C]	13.2012	1.0	0.04	16.6667	79.2	64 - 108
delta-BHC	11.1815	1.0	0.04	16.6667	67.1	44 - 110
delta-BHC [2C]	10.6423	1.0	0.04	16.6667	63.9	44 - 110
Dieldrin	13.1528	2.0	0.05	16.6667	78.9	63 - 107
Dieldrin [2C]	12.8832	2.0	0.05	16.6667	77.3	63 - 107
Endosulfan I	13.5912	1.0	0.04	16.6667	81.5	63 - 103
Endosulfan I [2C]	12.9683	1.0	0.04	16.6667	77.8	63 - 103
Endosulfan II	13.8878	2.0	0.10	16.6667	83.3	62 - 122
Endosulfan II [2C]	13.6657	2.0	0.10	16.6667	82.0	62 - 122
Endosulfan sulfate	12.8677	2.0	0.06	16.6667	77.2	53 - 127
Endosulfan Sulfate [2C]	12.8808	2.0	0.06	16.6667	77.3	53 - 127
Endrin	14.2877	2.0	0.08	16.6667	85.7	66 - 120
Endrin [2C]	14.0592	2.0	0.08	16.6667	84.4	66 - 120
Endrin aldehyde	14.8973	2.0	0.09	16.6667	89.4	67 - 121
Endrin aldehyde [2C]	14.1490	2.0	0.09	16.6667	84.9	67 - 121
Endrin ketone	12.6943	2.0	0.07	16.6667	76.2	41 - 146
Endrin ketone [2C]	13.0332	2.0	0.07	16.6667	78.2	41 - 146
gamma-BHC	13.5897	1.0	0.05	16.6667	81.5	67 - 109
gamma-BHC [2C]	12.8998	1.0	0.05	16.6667	77.4	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0152 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0152-BS1) - Continued

Prepared: 4/4/2018 Analyzed: 4/4/2018

gamma-Chlordane	13.8223	1.0	0.04	16.6667		82.9	63 - 110		
gamma-Chlordane [2C]	13.2978	1.0	0.04	16.6667		79.8	63 - 110		
Heptachlor	14.1880	1.0	0.07	16.6667		85.1	67 - 120		
Heptachlor [2C]	13.8738	1.0	0.07	16.6667		83.2	67 - 120		
Heptachlor epoxide	13.4855	1.0	0.04	16.6667		80.9	62 - 108		
Heptachlor epoxide [2C]	13.0603	1.0	0.04	16.6667		78.4	62 - 108		
Methoxychlor	12.8538	5.0	0.10	16.6667		77.1	47 - 152		
Methoxychlor [2C]	14.1543	5.0	0.10	16.6667		84.9	47 - 152		
Surrogate: Decachlorobiphenyl	11.96			16.6667		71.8	15 - 100		
Surrogate: Decachlorobiphenyl [	11.28			16.6667		67.7	15 - 100		
Surrogate: Tetrachloro-m-xylene	12.83			16.6667		77.0	16 - 100		
Surrogate: Tetrachloro-m-xylene	13.02			16.6667		78.1	16 - 100		

Matrix Spike (B8D0152-MS1)

Source: 1801233-38

Prepared: 4/4/2018 Analyzed: 4/4/2018

4,4'-DDD	10.4657	2.0	0.10	16.6667	ND	62.8	0 - 127		
4,4'-DDD [2C]	10.0635	2.0	0.10	16.6667	ND	60.4	0 - 127		
4,4'-DDE	10.3455	2.0	0.07	16.6667	ND	62.1	0 - 125		
4,4'-DDE [2C]	9.70217	2.0	0.07	16.6667	ND	58.2	0 - 125		
4,4'-DDT	8.72083	2.0	0.14	16.6667	ND	52.3	0 - 103		
4,4'-DDT [2C]	8.76583	2.0	0.14	16.6667	ND	52.6	0 - 103		
Aldrin	9.69767	1.0	0.08	16.6667	ND	58.2	6 - 104		
Aldrin [2C]	9.26800	1.0	0.08	16.6667	ND	55.6	6 - 104		
alpha-BHC	10.5375	1.0	0.04	16.6667	ND	63.2	0 - 114		
alpha-BHC [2C]	10.2202	1.0	0.04	16.6667	ND	61.3	0 - 114		
alpha-Chlordane	10.1292	1.0	0.04	16.6667	ND	60.8	0 - 110		
alpha-Chlordane [2C]	9.56983	1.0	0.04	16.6667	ND	57.4	0 - 110		
beta-BHC	11.2750	1.0	0.04	16.6667	ND	67.6	0 - 129		
beta-BHC [2C]	10.5985	1.0	0.04	16.6667	ND	63.6	0 - 129		
delta-BHC	8.49883	1.0	0.04	16.6667	ND	51.0	18 - 99		
delta-BHC [2C]	8.44050	1.0	0.04	16.6667	ND	50.6	18 - 99		
Dieldrin	9.56350	2.0	0.05	16.6667	ND	57.4	0 - 124		
Dieldrin [2C]	9.25450	2.0	0.05	16.6667	ND	55.5	0 - 124		
Endosulfan I	9.85333	1.0	0.04	16.6667	ND	59.1	0 - 106		
Endosulfan I [2C]	9.24167	1.0	0.04	16.6667	ND	55.4	0 - 106		
Endosulfan II	10.4708	2.0	0.10	16.6667	ND	62.8	20 - 130		
Endosulfan II [2C]	9.66500	2.0	0.10	16.6667	ND	58.0	20 - 130		
Endosulfan sulfate	10.5883	2.0	0.06	16.6667	ND	63.5	24 - 119		
Endosulfan Sulfate [2C]	8.50733	2.0	0.06	16.6667	ND	51.0	24 - 119		
Endrin	10.4673	2.0	0.08	16.6667	ND	62.8	0 - 135		
Endrin [2C]	10.1045	2.0	0.08	16.6667	ND	60.6	0 - 135		
Endrin aldehyde	11.3965	2.0	0.09	16.6667	ND	68.4	19 - 132		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0152 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0152-MS1) - Continued

Source: 1801233-38

Prepared: 4/4/2018 Analyzed: 4/4/2018

Endrin aldehyde [2C]	8.80300	2.0	0.09	16.6667	ND	52.8	19 - 132		
Endrin ketone	9.86533	2.0	0.07	16.6667	ND	59.2	7 - 141		
Endrin ketone [2C]	10.1732	2.0	0.07	16.6667	ND	61.0	7 - 141		
gamma-BHC	10.5112	1.0	0.05	16.6667	ND	63.1	0 - 117		
gamma-BHC [2C]	9.99733	1.0	0.05	16.6667	ND	60.0	0 - 117		
gamma-Chlordane	10.0182	1.0	0.04	16.6667	ND	60.1	0 - 156		
gamma-Chlordane [2C]	8.75850	1.0	0.04	16.6667	ND	52.6	0 - 156		
Heptachlor	9.72583	1.0	0.07	16.6667	ND	58.4	3 - 112		
Heptachlor [2C]	9.76567	1.0	0.07	16.6667	ND	58.6	3 - 112		
Heptachlor epoxide	9.60483	1.0	0.04	16.6667	ND	57.6	0 - 118		
Heptachlor epoxide [2C]	9.27150	1.0	0.04	16.6667	ND	55.6	0 - 118		
Methoxychlor	10.0823	5.0	0.10	16.6667	ND	60.5	0 - 161		
Methoxychlor [2C]	10.2742	5.0	0.10	16.6667	ND	61.6	0 - 161		
Surrogate: Decachlorobiphenyl	9.169			16.6667		55.0	15 - 100		
Surrogate: Decachlorobiphenyl [	6.677			16.6667		40.1	15 - 100		
Surrogate: Tetrachloro-m-xylene	8.019			16.6667		48.1	16 - 100		
Surrogate: Tetrachloro-m-xylene	8.632			16.6667		51.8	16 - 100		

Matrix Spike Dup (B8D0152-MSD1)

Source: 1801233-38

Prepared: 4/4/2018 Analyzed: 4/4/2018

4,4'-DDD	10.3285	2.0	0.10	16.6667	ND	62.0	0 - 127	1.32	20
4,4'-DDD [2C]	10.0012	2.0	0.10	16.6667	ND	60.0	0 - 127	0.621	20
4,4'-DDE	10.1770	2.0	0.07	16.6667	ND	61.1	0 - 125	1.64	20
4,4'-DDE [2C]	9.52983	2.0	0.07	16.6667	ND	57.2	0 - 125	1.79	20
4,4'-DDT	8.27683	2.0	0.14	16.6667	ND	49.7	0 - 103	5.22	20
4,4'-DDT [2C]	8.41500	2.0	0.14	16.6667	ND	50.5	0 - 103	4.08	20
Aldrin	9.55617	1.0	0.08	16.6667	ND	57.3	6 - 104	1.47	20
Aldrin [2C]	9.14317	1.0	0.08	16.6667	ND	54.9	6 - 104	1.36	20
alpha-BHC	10.3362	1.0	0.04	16.6667	ND	62.0	0 - 114	1.93	20
alpha-BHC [2C]	10.0462	1.0	0.04	16.6667	ND	60.3	0 - 114	1.72	20
alpha-Chlordane	9.99667	1.0	0.04	16.6667	ND	60.0	0 - 110	1.32	20
alpha-Chlordane [2C]	9.41233	1.0	0.04	16.6667	ND	56.5	0 - 110	1.66	20
beta-BHC	10.9955	1.0	0.04	16.6667	ND	66.0	0 - 129	2.51	20
beta-BHC [2C]	10.4207	1.0	0.04	16.6667	ND	62.5	0 - 129	1.69	20
delta-BHC	8.32400	1.0	0.04	16.6667	ND	49.9	18 - 99	2.08	20
delta-BHC [2C]	8.27617	1.0	0.04	16.6667	ND	49.7	18 - 99	1.97	20
Dieldrin	9.43417	2.0	0.05	16.6667	ND	56.6	0 - 124	1.36	20
Dieldrin [2C]	9.11950	2.0	0.05	16.6667	ND	54.7	0 - 124	1.47	20
Endosulfan I	9.74917	1.0	0.04	16.6667	ND	58.5	0 - 106	1.06	20
Endosulfan I [2C]	9.09333	1.0	0.04	16.6667	ND	54.6	0 - 106	1.62	20
Endosulfan II	10.2107	2.0	0.10	16.6667	ND	61.3	20 - 130	2.52	20
Endosulfan II [2C]	9.47900	2.0	0.10	16.6667	ND	56.9	20 - 130	1.94	20



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0152 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0152-MSD1) - Continued

Source: 1801233-38

Prepared: 4/4/2018 Analyzed: 4/4/2018

Endosulfan sulfate	10.1188	2.0	0.06	16.6667	ND	60.7	24 - 119	4.53	20	
Endosulfan Sulfate [2C]	8.30767	2.0	0.06	16.6667	ND	49.8	24 - 119	2.37	20	
Endrin	10.2948	2.0	0.08	16.6667	ND	61.8	0 - 135	1.66	20	
Endrin [2C]	9.97517	2.0	0.08	16.6667	ND	59.9	0 - 135	1.29	20	
Endrin aldehyde	10.9957	2.0	0.09	16.6667	ND	66.0	19 - 132	3.58	20	
Endrin aldehyde [2C]	8.57383	2.0	0.09	16.6667	ND	51.4	19 - 132	2.64	20	
Endrin ketone	9.72033	2.0	0.07	16.6667	ND	58.3	7 - 141	1.48	20	
Endrin ketone [2C]	10.1932	2.0	0.07	16.6667	ND	61.2	7 - 141	0.196	20	
gamma-BHC	10.2908	1.0	0.05	16.6667	ND	61.7	0 - 117	2.12	20	
gamma-BHC [2C]	9.84250	1.0	0.05	16.6667	ND	59.1	0 - 117	1.56	20	
gamma-Chlordane	9.89717	1.0	0.04	16.6667	ND	59.4	0 - 156	1.22	20	
gamma-Chlordane [2C]	8.66550	1.0	0.04	16.6667	ND	52.0	0 - 156	1.07	20	
Heptachlor	9.55950	1.0	0.07	16.6667	ND	57.4	3 - 112	1.72	20	
Heptachlor [2C]	9.60617	1.0	0.07	16.6667	ND	57.6	3 - 112	1.65	20	
Heptachlor epoxide	9.49417	1.0	0.04	16.6667	ND	57.0	0 - 118	1.16	20	
Heptachlor epoxide [2C]	9.13700	1.0	0.04	16.6667	ND	54.8	0 - 118	1.46	20	
Methoxychlor	9.28717	5.0	0.10	16.6667	ND	55.7	0 - 161	8.21	20	
Methoxychlor [2C]	9.97017	5.0	0.10	16.6667	ND	59.8	0 - 161	3.00	20	
Surrogate: Decachlorobiphenyl	8.436			16.6667		50.6	15 - 100			
Surrogate: Decachlorobiphenyl [	7.090			16.6667		42.5	15 - 100			
Surrogate: Tetrachloro-m-xylene	7.960			16.6667		47.8	16 - 100			
Surrogate: Tetrachloro-m-xylene	8.482			16.6667		50.9	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0162 - GCSEMI_PCB/PEST_S

Blank (B8D0162-BLK1)

Prepared: 4/5/2018 Analyzed: 4/5/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0162 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0162-BLK1) - Continued

Prepared: 4/5/2018 Analyzed: 4/5/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>13.05</i>		<i>16.6667</i>	<i>78.3</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>12.68</i>		<i>16.6667</i>	<i>76.1</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.18</i>		<i>16.6667</i>	<i>79.1</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.35</i>		<i>16.6667</i>	<i>80.1</i>	<i>16 - 100</i>

LCS (B8D0162-BS1)

Prepared: 4/5/2018 Analyzed: 4/5/2018

4,4'-DDD	14.2357	2.0	0.10	16.6667	85.4	62 - 129
4,4'-DDD [2C]	14.2138	2.0	0.10	16.6667	85.3	62 - 129
4,4'-DDE	15.0017	2.0	0.07	16.6667	90.0	65 - 117
4,4'-DDE [2C]	14.6532	2.0	0.07	16.6667	87.9	65 - 117
4,4'-DDT	13.9263	2.0	0.14	16.6667	83.6	35 - 136
4,4'-DDT [2C]	14.3657	2.0	0.14	16.6667	86.2	35 - 136
Aldrin	14.3733	1.0	0.08	16.6667	86.2	67 - 110
Aldrin [2C]	13.9642	1.0	0.08	16.6667	83.8	67 - 110
alpha-BHC	13.6725	1.0	0.04	16.6667	82.0	69 - 110
alpha-BHC [2C]	13.2122	1.0	0.04	16.6667	79.3	69 - 110
alpha-Chlordane	14.2177	1.0	0.04	16.6667	85.3	65 - 114
alpha-Chlordane [2C]	14.0195	1.0	0.04	16.6667	84.1	65 - 114
beta-BHC	13.1992	1.0	0.04	16.6667	79.2	64 - 108
beta-BHC [2C]	13.0385	1.0	0.04	16.6667	78.2	64 - 108
delta-BHC	10.8182	1.0	0.04	16.6667	64.9	44 - 110
delta-BHC [2C]	10.5900	1.0	0.04	16.6667	63.5	44 - 110
Dieldrin	13.4237	2.0	0.05	16.6667	80.5	63 - 107
Dieldrin [2C]	13.4720	2.0	0.05	16.6667	80.8	63 - 107
Endosulfan I	13.8148	1.0	0.04	16.6667	82.9	63 - 103
Endosulfan I [2C]	13.5565	1.0	0.04	16.6667	81.3	63 - 103
Endosulfan II	14.4328	2.0	0.10	16.6667	86.6	62 - 122
Endosulfan II [2C]	14.5815	2.0	0.10	16.6667	87.5	62 - 122
Endosulfan sulfate	13.5853	2.0	0.06	16.6667	81.5	53 - 127
Endosulfan Sulfate [2C]	13.7527	2.0	0.06	16.6667	82.5	53 - 127
Endrin	14.8022	2.0	0.08	16.6667	88.8	66 - 120
Endrin [2C]	14.8223	2.0	0.08	16.6667	88.9	66 - 120
Endrin aldehyde	15.7925	2.0	0.09	16.6667	94.8	67 - 121
Endrin aldehyde [2C]	15.0722	2.0	0.09	16.6667	90.4	67 - 121
Endrin ketone	13.5598	2.0	0.07	16.6667	81.4	41 - 146
Endrin ketone [2C]	13.8005	2.0	0.07	16.6667	82.8	41 - 146
gamma-BHC	13.3192	1.0	0.05	16.6667	79.9	67 - 109
gamma-BHC [2C]	12.9295	1.0	0.05	16.6667	77.6	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0162 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0162-BS1) - Continued

Prepared: 4/5/2018 Analyzed: 4/5/2018

gamma-Chlordane	13.8535	1.0	0.04	16.6667		83.1	63 - 110		
gamma-Chlordane [2C]	13.5347	1.0	0.04	16.6667		81.2	63 - 110		
Heptachlor	14.2875	1.0	0.07	16.6667		85.7	67 - 120		
Heptachlor [2C]	14.2373	1.0	0.07	16.6667		85.4	67 - 120		
Heptachlor epoxide	13.5510	1.0	0.04	16.6667		81.3	62 - 108		
Heptachlor epoxide [2C]	13.3413	1.0	0.04	16.6667		80.0	62 - 108		
Methoxychlor	14.9345	5.0	0.10	16.6667		89.6	47 - 152		
Methoxychlor [2C]	16.3773	5.0	0.10	16.6667		98.3	47 - 152		
Surrogate: Decachlorobiphenyl	12.60			16.6667		75.6	15 - 100		
Surrogate: Decachlorobiphenyl [	12.30			16.6667		73.8	15 - 100		
Surrogate: Tetrachloro-m-xylene	12.56			16.6667		75.4	16 - 100		
Surrogate: Tetrachloro-m-xylene	13.06			16.6667		78.3	16 - 100		

Matrix Spike (B8D0162-MS1)

Source: 1801330-01

Prepared: 4/5/2018 Analyzed: 4/5/2018

4,4'-DDD	11.8380	2.0	0.10	16.6667	ND	71.0	0 - 127		
4,4'-DDD [2C]	11.0063	2.0	0.10	16.6667	ND	66.0	0 - 127		
4,4'-DDE	11.9845	2.0	0.07	16.6667	ND	71.9	0 - 125		
4,4'-DDE [2C]	11.5228	2.0	0.07	16.6667	ND	69.1	0 - 125		
4,4'-DDT	11.1658	2.0	0.14	16.6667	ND	67.0	0 - 103		
4,4'-DDT [2C]	11.1527	2.0	0.14	16.6667	ND	66.9	0 - 103		
Aldrin	11.0122	1.0	0.08	16.6667	ND	66.1	6 - 104		
Aldrin [2C]	10.6735	1.0	0.08	16.6667	ND	64.0	6 - 104		
alpha-BHC	12.1673	1.0	0.04	16.6667	ND	73.0	0 - 114		
alpha-BHC [2C]	12.2070	1.0	0.04	16.6667	ND	73.2	0 - 114		
alpha-Chlordane	11.7258	1.0	0.04	16.6667	ND	70.4	0 - 110		
alpha-Chlordane [2C]	11.1743	1.0	0.04	16.6667	ND	67.0	0 - 110		
beta-BHC	12.5517	1.0	0.04	16.6667	ND	75.3	0 - 129		
beta-BHC [2C]	12.3918	1.0	0.04	16.6667	ND	74.4	0 - 129		
delta-BHC	9.64200	1.0	0.04	16.6667	ND	57.9	18 - 99		
delta-BHC [2C]	9.61200	1.0	0.04	16.6667	ND	57.7	18 - 99		
Dieldrin	11.1757	2.0	0.05	16.6667	ND	67.1	0 - 124		
Dieldrin [2C]	10.9222	2.0	0.05	16.6667	ND	65.5	0 - 124		
Endosulfan I	11.4162	1.0	0.04	16.6667	ND	68.5	0 - 106		
Endosulfan I [2C]	10.7533	1.0	0.04	16.6667	ND	64.5	0 - 106		
Endosulfan II	12.2933	2.0	0.10	16.6667	ND	73.8	20 - 130		
Endosulfan II [2C]	11.5880	2.0	0.10	16.6667	ND	69.5	20 - 130		
Endosulfan sulfate	12.3977	2.0	0.06	16.6667	ND	74.4	24 - 119		
Endosulfan Sulfate [2C]	10.5610	2.0	0.06	16.6667	ND	63.4	24 - 119		
Endrin	12.2247	2.0	0.08	16.6667	ND	73.3	0 - 135		
Endrin [2C]	11.7275	2.0	0.08	16.6667	ND	70.4	0 - 135		
Endrin aldehyde	13.8438	2.0	0.09	16.6667	ND	83.1	19 - 132		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0162 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0162-MS1) - Continued

Source: 1801330-01

Prepared: 4/5/2018 Analyzed: 4/5/2018

Endrin aldehyde [2C]	10.4083	2.0	0.09	16.6667	ND	62.4	19 - 132		
Endrin ketone	11.8323	2.0	0.07	16.6667	ND	71.0	7 - 141		
Endrin ketone [2C]	12.2613	2.0	0.07	16.6667	ND	73.6	7 - 141		
gamma-BHC	11.8198	1.0	0.05	16.6667	ND	70.9	0 - 117		
gamma-BHC [2C]	11.6865	1.0	0.05	16.6667	ND	70.1	0 - 117		
gamma-Chlordane	11.4158	1.0	0.04	16.6667	ND	68.5	0 - 156		
gamma-Chlordane [2C]	10.3060	1.0	0.04	16.6667	ND	61.8	0 - 156		
Heptachlor	11.4482	1.0	0.07	16.6667	ND	68.7	3 - 112		
Heptachlor [2C]	11.3935	1.0	0.07	16.6667	ND	68.4	3 - 112		
Heptachlor epoxide	11.0818	1.0	0.04	16.6667	ND	66.5	0 - 118		
Heptachlor epoxide [2C]	10.7687	1.0	0.04	16.6667	ND	64.6	0 - 118		
Methoxychlor	13.9643	5.0	0.10	16.6667	ND	83.8	0 - 161		
Methoxychlor [2C]	12.7808	5.0	0.10	16.6667	ND	76.7	0 - 161		
Surrogate: Decachlorobiphenyl	9.460			16.6667		56.8	15 - 100		
Surrogate: Decachlorobiphenyl [	9.265			16.6667		55.6	15 - 100		
Surrogate: Tetrachloro-m-xylene	8.819			16.6667		52.9	16 - 100		
Surrogate: Tetrachloro-m-xylene	10.23			16.6667		61.4	16 - 100		

Matrix Spike Dup (B8D0162-MSD1)

Source: 1801330-01

Prepared: 4/5/2018 Analyzed: 4/5/2018

4,4'-DDD	12.0233	2.0	0.10	16.6667	ND	72.1	0 - 127	1.55	20
4,4'-DDD [2C]	11.2585	2.0	0.10	16.6667	ND	67.6	0 - 127	2.27	20
4,4'-DDE	12.1088	2.0	0.07	16.6667	ND	72.7	0 - 125	1.03	20
4,4'-DDE [2C]	11.6825	2.0	0.07	16.6667	ND	70.1	0 - 125	1.38	20
4,4'-DDT	11.2742	2.0	0.14	16.6667	ND	67.6	0 - 103	0.966	20
4,4'-DDT [2C]	11.4072	2.0	0.14	16.6667	ND	68.4	0 - 103	2.26	20
Aldrin	11.1103	1.0	0.08	16.6667	ND	66.7	6 - 104	0.887	20
Aldrin [2C]	10.7675	1.0	0.08	16.6667	ND	64.6	6 - 104	0.877	20
alpha-BHC	12.2965	1.0	0.04	16.6667	ND	73.8	0 - 114	1.06	20
alpha-BHC [2C]	12.3432	1.0	0.04	16.6667	ND	74.1	0 - 114	1.11	20
alpha-Chlordane	11.8632	1.0	0.04	16.6667	ND	71.2	0 - 110	1.16	20
alpha-Chlordane [2C]	11.3362	1.0	0.04	16.6667	ND	68.0	0 - 110	1.44	20
beta-BHC	12.4473	1.0	0.04	16.6667	ND	74.7	0 - 129	0.835	20
beta-BHC [2C]	12.5810	1.0	0.04	16.6667	ND	75.5	0 - 129	1.52	20
delta-BHC	9.66400	1.0	0.04	16.6667	ND	58.0	18 - 99	0.228	20
delta-BHC [2C]	9.72967	1.0	0.04	16.6667	ND	58.4	18 - 99	1.22	20
Dieldrin	11.2793	2.0	0.05	16.6667	ND	67.7	0 - 124	0.923	20
Dieldrin [2C]	11.1090	2.0	0.05	16.6667	ND	66.7	0 - 124	1.70	20
Endosulfan I	11.4518	1.0	0.04	16.6667	ND	68.7	0 - 106	0.312	20
Endosulfan I [2C]	10.8772	1.0	0.04	16.6667	ND	65.3	0 - 106	1.15	20
Endosulfan II	12.4167	2.0	0.10	16.6667	ND	74.5	20 - 130	0.998	20
Endosulfan II [2C]	11.7023	2.0	0.10	16.6667	ND	70.2	20 - 130	0.982	20



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0162 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0162-MSD1) - Continued

Source: 1801330-01

Prepared: 4/5/2018 Analyzed: 4/5/2018

Endosulfan sulfate	12.6183	2.0	0.06	16.6667	ND	75.7	24 - 119	1.76	20	
Endosulfan Sulfate [2C]	10.6183	2.0	0.06	16.6667	ND	63.7	24 - 119	0.541	20	
Endrin	12.3337	2.0	0.08	16.6667	ND	74.0	0 - 135	0.888	20	
Endrin [2C]	11.9162	2.0	0.08	16.6667	ND	71.5	0 - 135	1.60	20	
Endrin aldehyde	14.0462	2.0	0.09	16.6667	ND	84.3	19 - 132	1.45	20	
Endrin aldehyde [2C]	10.4813	2.0	0.09	16.6667	ND	62.9	19 - 132	0.699	20	
Endrin ketone	12.6410	2.0	0.07	16.6667	ND	75.8	7 - 141	6.61	20	
Endrin ketone [2C]	12.6117	2.0	0.07	16.6667	ND	75.7	7 - 141	2.82	20	
gamma-BHC	11.9180	1.0	0.05	16.6667	ND	71.5	0 - 117	0.827	20	
gamma-BHC [2C]	11.8605	1.0	0.05	16.6667	ND	71.2	0 - 117	1.48	20	
gamma-Chlordane	11.5450	1.0	0.04	16.6667	ND	69.3	0 - 156	1.13	20	
gamma-Chlordane [2C]	10.2498	1.0	0.04	16.6667	ND	61.5	0 - 156	0.547	20	
Heptachlor	11.4815	1.0	0.07	16.6667	ND	68.9	3 - 112	0.291	20	
Heptachlor [2C]	11.5373	1.0	0.07	16.6667	ND	69.2	3 - 112	1.25	20	
Heptachlor epoxide	11.1085	1.0	0.04	16.6667	ND	66.7	0 - 118	0.240	20	
Heptachlor epoxide [2C]	10.8438	1.0	0.04	16.6667	ND	65.1	0 - 118	0.696	20	
Methoxychlor	16.0978	5.0	0.10	16.6667	ND	96.6	0 - 161	14.2	20	
Methoxychlor [2C]	13.1912	5.0	0.10	16.6667	ND	79.1	0 - 161	3.16	20	
Surrogate: Decachlorobiphenyl	9.956			16.6667		59.7	15 - 100			
Surrogate: Decachlorobiphenyl [	9.145			16.6667		54.9	15 - 100			
Surrogate: Tetrachloro-m-xylene	8.891			16.6667		53.3	16 - 100			
Surrogate: Tetrachloro-m-xylene	10.34			16.6667		62.1	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S

Blank (B8D0184-BLK1)

Prepared: 4/5/2018 Analyzed: 4/6/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0184-BLK1) - Continued

Prepared: 4/5/2018 Analyzed: 4/6/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>11.98</i>		<i>16.6667</i>	<i>71.9</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.59</i>		<i>16.6667</i>	<i>69.5</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>14.38</i>		<i>16.6667</i>	<i>86.3</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.96</i>		<i>16.6667</i>	<i>83.7</i>	<i>16 - 100</i>

LCS (B8D0184-BS1)

Prepared: 4/5/2018 Analyzed: 4/6/2018

4,4'-DDD	15.5125	2.0	0.10	16.6667	93.1	62 - 129
4,4'-DDD [2C]	15.7238	2.0	0.10	16.6667	94.3	62 - 129
4,4'-DDE	15.6153	2.0	0.07	16.6667	93.7	65 - 117
4,4'-DDE [2C]	14.9892	2.0	0.07	16.6667	89.9	65 - 117
4,4'-DDT	11.7065	2.0	0.14	16.6667	70.2	35 - 136
4,4'-DDT [2C]	12.5535	2.0	0.14	16.6667	75.3	35 - 136
Aldrin	15.4563	1.0	0.08	16.6667	92.7	67 - 110
Aldrin [2C]	14.6930	1.0	0.08	16.6667	88.2	67 - 110
alpha-BHC	15.0292	1.0	0.04	16.6667	90.2	69 - 110
alpha-BHC [2C]	14.1505	1.0	0.04	16.6667	84.9	69 - 110
alpha-Chlordane	14.9750	1.0	0.04	16.6667	89.8	65 - 114
alpha-Chlordane [2C]	14.5690	1.0	0.04	16.6667	87.4	65 - 114
beta-BHC	14.8127	1.0	0.04	16.6667	88.9	64 - 108
beta-BHC [2C]	14.2522	1.0	0.04	16.6667	85.5	64 - 108
delta-BHC	12.0570	1.0	0.04	16.6667	72.3	44 - 110
delta-BHC [2C]	11.5105	1.0	0.04	16.6667	69.1	44 - 110
Dieldrin	13.9238	2.0	0.05	16.6667	83.5	63 - 107
Dieldrin [2C]	13.8578	2.0	0.05	16.6667	83.1	63 - 107
Endosulfan I	14.4395	1.0	0.04	16.6667	86.6	63 - 103
Endosulfan I [2C]	13.9962	1.0	0.04	16.6667	84.0	63 - 103
Endosulfan II	14.4915	2.0	0.10	16.6667	86.9	62 - 122
Endosulfan II [2C]	14.7123	2.0	0.10	16.6667	88.3	62 - 122
Endosulfan sulfate	13.3238	2.0	0.06	16.6667	79.9	53 - 127
Endosulfan Sulfate [2C]	13.2318	2.0	0.06	16.6667	79.4	53 - 127
Endrin	15.0592	2.0	0.08	16.6667	90.4	66 - 120
Endrin [2C]	15.1565	2.0	0.08	16.6667	90.9	66 - 120
Endrin aldehyde	15.3593	2.0	0.09	16.6667	92.2	67 - 121
Endrin aldehyde [2C]	14.7777	2.0	0.09	16.6667	88.7	67 - 121
Endrin ketone	12.8963	2.0	0.07	16.6667	77.4	41 - 146
Endrin ketone [2C]	13.3265	2.0	0.07	16.6667	80.0	41 - 146
gamma-BHC	14.6435	1.0	0.05	16.6667	87.9	67 - 109
gamma-BHC [2C]	13.9180	1.0	0.05	16.6667	83.5	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0184-BS1) - Continued

Prepared: 4/5/2018 Analyzed: 4/6/2018

gamma-Chlordane	14.7597	1.0	0.04	16.6667		88.6	63 - 110		
gamma-Chlordane [2C]	14.3493	1.0	0.04	16.6667		86.1	63 - 110		
Heptachlor	15.1662	1.0	0.07	16.6667		91.0	67 - 120		
Heptachlor [2C]	14.9458	1.0	0.07	16.6667		89.7	67 - 120		
Heptachlor epoxide	14.4330	1.0	0.04	16.6667		86.6	62 - 108		
Heptachlor epoxide [2C]	14.0870	1.0	0.04	16.6667		84.5	62 - 108		
Methoxychlor	12.5902	5.0	0.10	16.6667		75.5	47 - 152		
Methoxychlor [2C]	14.1778	5.0	0.10	16.6667		85.1	47 - 152		
Surrogate: Decachlorobiphenyl	11.42			16.6667		68.5	15 - 100		
Surrogate: Decachlorobiphenyl [	11.38			16.6667		68.3	15 - 100		
Surrogate: Tetrachloro-m-xylene	13.72			16.6667		82.3	16 - 100		
Surrogate: Tetrachloro-m-xylene	13.81			16.6667		82.8	16 - 100		

Matrix Spike (B8D0184-MS1)

Source: 1801340-01

Prepared: 4/5/2018 Analyzed: 4/6/2018

4,4'-DDD	5.60200	4.0	0.20	16.6667	ND	33.6	0 - 127		
4,4'-DDD [2C]	5.90400	4.0	0.20	16.6667	ND	35.4	0 - 127		
4,4'-DDE	6.97267	4.0	0.13	16.6667	0.272333	40.2	0 - 125		
4,4'-DDE [2C]	6.68100	4.0	0.13	16.6667	0.298000	38.3	0 - 125		
4,4'-DDT	5.28767	4.0	0.28	16.6667	0.809667	26.9	0 - 103		
4,4'-DDT [2C]	5.59833	4.0	0.28	16.6667	0.764667	29.0	0 - 103		
Aldrin	6.89533	2.0	0.16	16.6667	ND	41.4	6 - 104		
Aldrin [2C]	6.91633	2.0	0.16	16.6667	ND	41.5	6 - 104		
alpha-BHC	5.68567	2.0	0.08	16.6667	ND	34.1	0 - 114		
alpha-BHC [2C]	6.10000	2.0	0.08	16.6667	ND	36.6	0 - 114		
alpha-Chlordane	6.29267	2.0	0.07	16.6667	ND	37.8	0 - 110		
alpha-Chlordane [2C]	6.32667	2.0	0.07	16.6667	ND	38.0	0 - 110		
beta-BHC	3.89500	2.0	0.09	16.6667	ND	23.4	0 - 129		
beta-BHC [2C]	3.92233	2.0	0.09	16.6667	ND	23.5	0 - 129		
delta-BHC	2.10867	2.0	0.09	16.6667	ND	12.7	18 - 99		M1
delta-BHC [2C]	2.19767	2.0	0.09	16.6667	ND	13.2	18 - 99		M1
Dieldrin	4.06033	4.0	0.10	16.6667	ND	24.4	0 - 124		
Dieldrin [2C]	4.09267	4.0	0.10	16.6667	ND	24.6	0 - 124		
Endosulfan I	4.92467	2.0	0.07	16.6667	ND	29.5	0 - 106		
Endosulfan I [2C]	4.81600	2.0	0.07	16.6667	ND	28.9	0 - 106		
Endosulfan II	2.03133	4.0	0.21	16.6667	ND	12.2	20 - 130		M1
Endosulfan II [2C]	2.11233	4.0	0.21	16.6667	ND	12.7	20 - 130		M1
Endosulfan sulfate	1.52933	4.0	0.11	16.6667	ND	9.18	24 - 119		M1
Endosulfan Sulfate [2C]	1.54067	4.0	0.11	16.6667	ND	9.24	24 - 119		M1
Endrin	4.41800	4.0	0.16	16.6667	ND	26.5	0 - 135		
Endrin [2C]	4.60167	4.0	0.16	16.6667	ND	27.6	0 - 135		
Endrin aldehyde	1.69500	4.0	0.18	16.6667	ND	10.2	19 - 132		M1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0184-MS1) - Continued

Source: 1801340-01

Prepared: 4/5/2018 Analyzed: 4/6/2018

Endrin aldehyde [2C]	1.70800	4.0	0.18	16.6667	ND	10.2	19 - 132		M1
Endrin ketone	1.52967	4.0	0.15	16.6667	ND	9.18	7 - 141		
Endrin ketone [2C]	1.73033	4.0	0.15	16.6667	ND	10.4	7 - 141		
gamma-BHC	5.16333	2.0	0.09	16.6667	ND	31.0	0 - 117		
gamma-BHC [2C]	5.24033	2.0	0.09	16.6667	ND	31.4	0 - 117		
gamma-Chlordane	102.549	2.0	0.08	16.6667	ND	615	0 - 156		M1
gamma-Chlordane [2C]	5.74700	2.0	0.08	16.6667	ND	34.5	0 - 156		
Heptachlor	6.92567	2.0	0.13	16.6667	ND	41.6	3 - 112		
Heptachlor [2C]	7.10867	2.0	0.13	16.6667	ND	42.7	3 - 112		
Heptachlor epoxide	4.97300	2.0	0.07	16.6667	ND	29.8	0 - 118		
Heptachlor epoxide [2C]	4.95667	2.0	0.07	16.6667	ND	29.7	0 - 118		
Methoxychlor	3.13867	10	0.19	16.6667	ND	18.8	0 - 161		
Methoxychlor [2C]	3.60067	10	0.19	16.6667	ND	21.6	0 - 161		
Surrogate: Decachlorobiphenyl	5.718			16.6667		34.3	15 - 100		
Surrogate: Decachlorobiphenyl [	6.056			16.6667		36.3	15 - 100		
Surrogate: Tetrachloro-m-xylene	6.059			16.6667		36.4	16 - 100		
Surrogate: Tetrachloro-m-xylene	6.950			16.6667		41.7	16 - 100		

Matrix Spike Dup (B8D0184-MSD1)

Source: 1801340-01

Prepared: 4/5/2018 Analyzed: 4/6/2018

4,4'-DDD	5.74967	4.0	0.20	16.6667	ND	34.5	0 - 127	2.60	20	
4,4'-DDD [2C]	5.83967	4.0	0.20	16.6667	ND	35.0	0 - 127	1.10	20	
4,4'-DDE	7.31467	4.0	0.13	16.6667	0.272333	42.3	0 - 125	4.79	20	
4,4'-DDE [2C]	6.80267	4.0	0.13	16.6667	0.298000	39.0	0 - 125	1.80	20	
4,4'-DDT	5.38133	4.0	0.28	16.6667	0.809667	27.4	0 - 103	1.76	20	
4,4'-DDT [2C]	5.58100	4.0	0.28	16.6667	0.764667	28.9	0 - 103	0.310	20	
Aldrin	7.41867	2.0	0.16	16.6667	ND	44.5	6 - 104	7.31	20	
Aldrin [2C]	7.31567	2.0	0.16	16.6667	ND	43.9	6 - 104	5.61	20	
alpha-BHC	6.29367	2.0	0.08	16.6667	ND	37.8	0 - 114	10.2	20	
alpha-BHC [2C]	6.69000	2.0	0.08	16.6667	ND	40.1	0 - 114	9.23	20	
alpha-Chlordane	6.63600	2.0	0.07	16.6667	ND	39.8	0 - 110	5.31	20	
alpha-Chlordane [2C]	6.44500	2.0	0.07	16.6667	ND	38.7	0 - 110	1.85	20	
beta-BHC	4.30067	2.0	0.09	16.6667	ND	25.8	0 - 129	9.90	20	
beta-BHC [2C]	4.26200	2.0	0.09	16.6667	ND	25.6	0 - 129	8.30	20	
delta-BHC	2.38433	2.0	0.09	16.6667	ND	14.3	18 - 99	12.3	20	M1
delta-BHC [2C]	2.36733	2.0	0.09	16.6667	ND	14.2	18 - 99	7.43	20	M1
Dieldrin	4.33433	4.0	0.10	16.6667	ND	26.0	0 - 124	6.53	20	
Dieldrin [2C]	4.22833	4.0	0.10	16.6667	ND	25.4	0 - 124	3.26	20	
Endosulfan I	5.23900	2.0	0.07	16.6667	ND	31.4	0 - 106	6.19	20	
Endosulfan I [2C]	4.97500	2.0	0.07	16.6667	ND	29.8	0 - 106	3.25	20	
Endosulfan II	2.23267	4.0	0.21	16.6667	ND	13.4	20 - 130	9.44	20	M1
Endosulfan II [2C]	2.21800	4.0	0.21	16.6667	ND	13.3	20 - 130	4.88	20	M1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0184-MSD1) - Continued

Source: 1801340-01

Prepared: 4/5/2018 Analyzed: 4/6/2018

Endosulfan sulfate	1.78933	4.0	0.11	16.6667	ND	10.7	24 - 119	15.7	20	M1
Endosulfan Sulfate [2C]	1.84633	4.0	0.11	16.6667	ND	11.1	24 - 119	18.0	20	M1
Endrin	4.62100	4.0	0.16	16.6667	ND	27.7	0 - 135	4.49	20	
Endrin [2C]	4.65100	4.0	0.16	16.6667	ND	27.9	0 - 135	1.07	20	
Endrin aldehyde	1.93100	4.0	0.18	16.6667	ND	11.6	19 - 132	13.0	20	M1
Endrin aldehyde [2C]	1.80767	4.0	0.18	16.6667	ND	10.8	19 - 132	5.67	20	M1
Endrin ketone	1.76000	4.0	0.15	16.6667	ND	10.6	7 - 141	14.0	20	
Endrin ketone [2C]	1.92000	4.0	0.15	16.6667	ND	11.5	7 - 141	10.4	20	
gamma-BHC	5.71067	2.0	0.09	16.6667	ND	34.3	0 - 117	10.1	20	
gamma-BHC [2C]	5.68567	2.0	0.09	16.6667	ND	34.1	0 - 117	8.15	20	
gamma-Chlordane	108.433	2.0	0.08	16.6667	ND	651	0 - 156	5.58	20	M1
gamma-Chlordane [2C]	5.94667	2.0	0.08	16.6667	ND	35.7	0 - 156	3.41	20	
Heptachlor	7.49900	2.0	0.13	16.6667	ND	45.0	3 - 112	7.95	20	
Heptachlor [2C]	7.57500	2.0	0.13	16.6667	ND	45.4	3 - 112	6.35	20	
Heptachlor epoxide	5.46967	2.0	0.07	16.6667	ND	32.8	0 - 118	9.51	20	
Heptachlor epoxide [2C]	5.27167	2.0	0.07	16.6667	ND	31.6	0 - 118	6.16	20	
Methoxychlor	3.40633	10	0.19	16.6667	ND	20.4	0 - 161	8.18	20	
Methoxychlor [2C]	3.79900	10	0.19	16.6667	ND	22.8	0 - 161	5.36	20	
Surrogate: Decachlorobiphenyl	6.542			16.6667		39.3	15 - 100			
Surrogate: Decachlorobiphenyl [	6.376			16.6667		38.3	15 - 100			
Surrogate: Tetrachloro-m-xylene	7.058			16.6667		42.3	16 - 100			
Surrogate: Tetrachloro-m-xylene	7.484			16.6667		44.9	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S

Blank (B8D0186-BLK1)

Prepared: 4/6/2018 Analyzed: 4/6/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0186-BLK1) - Continued

Prepared: 4/6/2018 Analyzed: 4/6/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>12.16</i>			<i>16.6667</i>		<i>73.0</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.96</i>			<i>16.6667</i>		<i>71.8</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.79</i>			<i>16.6667</i>		<i>82.8</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.38</i>			<i>16.6667</i>		<i>80.3</i>	<i>16 - 100</i>

LCS (B8D0186-BS1)

Prepared: 4/6/2018 Analyzed: 4/6/2018

4,4'-DDD	17.2598	2.0	0.10	16.6667		104	62 - 129
4,4'-DDD [2C]	17.0728	2.0	0.10	16.6667		102	62 - 129
4,4'-DDE	15.8655	2.0	0.07	16.6667		95.2	65 - 117
4,4'-DDE [2C]	14.9727	2.0	0.07	16.6667		89.8	65 - 117
4,4'-DDT	10.9553	2.0	0.14	16.6667		65.7	35 - 136
4,4'-DDT [2C]	11.7573	2.0	0.14	16.6667		70.5	35 - 136
Aldrin	15.2943	1.0	0.08	16.6667		91.8	67 - 110
Aldrin [2C]	14.4490	1.0	0.08	16.6667		86.7	67 - 110
alpha-BHC	14.6358	1.0	0.04	16.6667		87.8	69 - 110
alpha-BHC [2C]	13.7650	1.0	0.04	16.6667		82.6	69 - 110
alpha-Chlordane	15.1255	1.0	0.04	16.6667		90.8	65 - 114
alpha-Chlordane [2C]	14.5252	1.0	0.04	16.6667		87.2	65 - 114
beta-BHC	14.5135	1.0	0.04	16.6667		87.1	64 - 108
beta-BHC [2C]	13.9470	1.0	0.04	16.6667		83.7	64 - 108
delta-BHC	11.7940	1.0	0.04	16.6667		70.8	44 - 110
delta-BHC [2C]	11.1773	1.0	0.04	16.6667		67.1	44 - 110
Dieldrin	14.1652	2.0	0.05	16.6667		85.0	63 - 107
Dieldrin [2C]	13.9618	2.0	0.05	16.6667		83.8	63 - 107
Endosulfan I	14.6113	1.0	0.04	16.6667		87.7	63 - 103
Endosulfan I [2C]	13.9715	1.0	0.04	16.6667		83.8	63 - 103
Endosulfan II	15.3328	2.0	0.10	16.6667		92.0	62 - 122
Endosulfan II [2C]	15.0347	2.0	0.10	16.6667		90.2	62 - 122
Endosulfan sulfate	14.4042	2.0	0.06	16.6667		86.4	53 - 127
Endosulfan Sulfate [2C]	14.2523	2.0	0.06	16.6667		85.5	53 - 127
Endrin	15.4253	2.0	0.08	16.6667		92.6	66 - 120
Endrin [2C]	15.2808	2.0	0.08	16.6667		91.7	66 - 120
Endrin aldehyde	16.3555	2.0	0.09	16.6667		98.1	67 - 121
Endrin aldehyde [2C]	15.3247	2.0	0.09	16.6667		91.9	67 - 121
Endrin ketone	13.6448	2.0	0.07	16.6667		81.9	41 - 146
Endrin ketone [2C]	14.2970	2.0	0.07	16.6667		85.8	41 - 146
gamma-BHC	14.2293	1.0	0.05	16.6667		85.4	67 - 109
gamma-BHC [2C]	13.5582	1.0	0.05	16.6667		81.3	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0186-BS1) - Continued

Prepared: 4/6/2018 Analyzed: 4/6/2018

gamma-Chlordane	14.8207	1.0	0.04	16.6667		88.9	63 - 110		
gamma-Chlordane [2C]	14.2888	1.0	0.04	16.6667		85.7	63 - 110		
Heptachlor	14.5955	1.0	0.07	16.6667		87.6	67 - 120		
Heptachlor [2C]	14.5143	1.0	0.07	16.6667		87.1	67 - 120		
Heptachlor epoxide	14.3712	1.0	0.04	16.6667		86.2	62 - 108		
Heptachlor epoxide [2C]	13.9375	1.0	0.04	16.6667		83.6	62 - 108		
Methoxychlor	12.6112	5.0	0.10	16.6667		75.7	47 - 152		
Methoxychlor [2C]	13.9393	5.0	0.10	16.6667		83.6	47 - 152		
Surrogate: Decachlorobiphenyl	12.42			16.6667		74.5	15 - 100		
Surrogate: Decachlorobiphenyl [	11.76			16.6667		70.6	15 - 100		
Surrogate: Tetrachloro-m-xylene	13.38			16.6667		80.3	16 - 100		
Surrogate: Tetrachloro-m-xylene	13.42			16.6667		80.5	16 - 100		

Matrix Spike (B8D0186-MS1)

Source: 1801359-09

Prepared: 4/6/2018 Analyzed: 4/6/2018

4,4'-DDD	6.20817	2.0	0.10	16.6667	ND	37.2	0 - 127		
4,4'-DDD [2C]	6.22400	2.0	0.10	16.6667	ND	37.3	0 - 127		
4,4'-DDE	7.94600	2.0	0.07	16.6667	0.472667	44.8	0 - 125		
4,4'-DDE [2C]	7.09833	2.0	0.07	16.6667	0.442500	39.9	0 - 125		
4,4'-DDT	5.58183	2.0	0.14	16.6667	0.211167	32.2	0 - 103		
4,4'-DDT [2C]	5.70950	2.0	0.14	16.6667	0.328833	32.3	0 - 103		
Aldrin	6.79950	1.0	0.08	16.6667	ND	40.8	6 - 104		
Aldrin [2C]	6.49950	1.0	0.08	16.6667	ND	39.0	6 - 104		
alpha-BHC	5.64733	1.0	0.04	16.6667	ND	33.9	0 - 114		
alpha-BHC [2C]	5.61800	1.0	0.04	16.6667	ND	33.7	0 - 114		
alpha-Chlordane	6.57800	1.0	0.04	16.6667	0.397833	37.1	0 - 110		
alpha-Chlordane [2C]	6.68500	1.0	0.04	16.6667	0.870000	34.9	0 - 110		
beta-BHC	3.11850	1.0	0.04	16.6667	ND	18.7	0 - 129		
beta-BHC [2C]	3.13900	1.0	0.04	16.6667	ND	18.8	0 - 129		
delta-BHC	1.21250	1.0	0.04	16.6667	ND	7.27	18 - 99		M2
delta-BHC [2C]	1.19150	1.0	0.04	16.6667	ND	7.15	18 - 99		M2
Dieldrin	2.64450	2.0	0.05	16.6667	ND	15.9	0 - 124		
Dieldrin [2C]	2.64650	2.0	0.05	16.6667	ND	15.9	0 - 124		
Endosulfan I	3.70567	1.0	0.04	16.6667	ND	22.2	0 - 106		
Endosulfan I [2C]	3.46417	1.0	0.04	16.6667	ND	20.8	0 - 106		
Endosulfan II	0.726167	2.0	0.10	16.6667	ND	4.36	20 - 130		M2
Endosulfan II [2C]	0.827667	2.0	0.10	16.6667	ND	4.97	20 - 130		M2
Endosulfan sulfate	0.569167	2.0	0.06	16.6667	ND	3.42	24 - 119		M2
Endosulfan Sulfate [2C]	0.615167	2.0	0.06	16.6667	ND	3.69	24 - 119		M2
Endrin	3.06000	2.0	0.08	16.6667	ND	18.4	0 - 135		
Endrin [2C]	3.28033	2.0	0.08	16.6667	ND	19.7	0 - 135		
Endrin aldehyde	0.677167	2.0	0.09	16.6667	ND	4.06	19 - 132		M2



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0186-MS1) - Continued

Source: 1801359-09

Prepared: 4/6/2018 Analyzed: 4/6/2018

Endrin aldehyde [2C]	0.722333	2.0	0.09	16.6667	ND	4.33	19 - 132		M2
Endrin ketone	0.693667	2.0	0.07	16.6667	ND	4.16	7 - 141		M2
Endrin ketone [2C]	0.746500	2.0	0.07	16.6667	ND	4.48	7 - 141		M2
gamma-BHC	5.03700	1.0	0.05	16.6667	ND	30.2	0 - 117		
gamma-BHC [2C]	4.71200	1.0	0.05	16.6667	ND	28.3	0 - 117		
gamma-Chlordane	58.3812	1.0	0.04	16.6667	39.5932	113	0 - 156		
gamma-Chlordane [2C]	5.64833	1.0	0.04	16.6667	0.465333	31.1	0 - 156		
Heptachlor	6.77650	1.0	0.07	16.6667	ND	40.7	3 - 112		
Heptachlor [2C]	6.63467	1.0	0.07	16.6667	ND	39.8	3 - 112		
Heptachlor epoxide	3.85717	1.0	0.04	16.6667	ND	23.1	0 - 118		
Heptachlor epoxide [2C]	3.70583	1.0	0.04	16.6667	ND	22.2	0 - 118		
Methoxychlor	1.38733	5.0	0.10	16.6667	ND	8.32	0 - 161		
Methoxychlor [2C]	1.51917	5.0	0.10	16.6667	ND	9.12	0 - 161		
Surrogate: Decachlorobiphenyl	7.384			16.6667		44.3	15 - 100		
Surrogate: Decachlorobiphenyl [	7.383			16.6667		44.3	15 - 100		
Surrogate: Tetrachloro-m-xylene	5.812			16.6667		34.9	16 - 100		
Surrogate: Tetrachloro-m-xylene	6.168			16.6667		37.0	16 - 100		

Matrix Spike Dup (B8D0186-MSD1)

Source: 1801359-09

Prepared: 4/6/2018 Analyzed: 4/6/2018

4,4'-DDD	5.97717	2.0	0.10	16.6667	ND	35.9	0 - 127	3.79	20	
4,4'-DDD [2C]	5.89683	2.0	0.10	16.6667	ND	35.4	0 - 127	5.40	20	
4,4'-DDE	7.96517	2.0	0.07	16.6667	0.472667	45.0	0 - 125	0.241	20	
4,4'-DDE [2C]	6.99850	2.0	0.07	16.6667	0.442500	39.3	0 - 125	1.42	20	
4,4'-DDT	5.12200	2.0	0.14	16.6667	0.211167	29.5	0 - 103	8.59	20	
4,4'-DDT [2C]	5.21300	2.0	0.14	16.6667	0.328833	29.3	0 - 103	9.09	20	
Aldrin	6.99400	1.0	0.08	16.6667	ND	42.0	6 - 104	2.82	20	
Aldrin [2C]	6.57167	1.0	0.08	16.6667	ND	39.4	6 - 104	1.10	20	
alpha-BHC	5.70767	1.0	0.04	16.6667	ND	34.2	0 - 114	1.06	20	
alpha-BHC [2C]	5.76733	1.0	0.04	16.6667	ND	34.6	0 - 114	2.62	20	
alpha-Chlordane	6.47150	1.0	0.04	16.6667	0.397833	36.4	0 - 110	1.63	20	
alpha-Chlordane [2C]	6.46183	1.0	0.04	16.6667	0.870000	33.6	0 - 110	3.39	20	
beta-BHC	2.99217	1.0	0.04	16.6667	ND	18.0	0 - 129	4.13	20	
beta-BHC [2C]	3.21850	1.0	0.04	16.6667	ND	19.3	0 - 129	2.50	20	
delta-BHC	1.09233	1.0	0.04	16.6667	ND	6.55	18 - 99	10.4	20	M2
delta-BHC [2C]	1.13667	1.0	0.04	16.6667	ND	6.82	18 - 99	4.71	20	M2
Dieldrin	2.39583	2.0	0.05	16.6667	ND	14.4	0 - 124	9.87	20	
Dieldrin [2C]	2.38800	2.0	0.05	16.6667	ND	14.3	0 - 124	10.3	20	
Endosulfan I	3.47850	1.0	0.04	16.6667	ND	20.9	0 - 106	6.32	20	
Endosulfan I [2C]	3.18667	1.0	0.04	16.6667	ND	19.1	0 - 106	8.34	20	
Endosulfan II	0.599667	2.0	0.10	16.6667	ND	3.60	20 - 130	19.1	20	M2
Endosulfan II [2C]	0.633333	2.0	0.10	16.6667	ND	3.80	20 - 130	26.6	20	M2, R3



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0186-MSD1) - Continued

Source: 1801359-09

Prepared: 4/6/2018 Analyzed: 4/6/2018

Endosulfan sulfate	0.525500	2.0	0.06	16.6667	ND	3.15	24 - 119	7.98	20	M2
Endosulfan Sulfate [2C]	0.486500	2.0	0.06	16.6667	ND	2.92	24 - 119	23.4	20	M2, R3
Endrin	2.75967	2.0	0.08	16.6667	ND	16.6	0 - 135	10.3	20	
Endrin [2C]	2.88267	2.0	0.08	16.6667	ND	17.3	0 - 135	12.9	20	
Endrin aldehyde	0.553167	2.0	0.09	16.6667	ND	3.32	19 - 132	20.2	20	M2, R3
Endrin aldehyde [2C]	0.605000	2.0	0.09	16.6667	ND	3.63	19 - 132	17.7	20	M2
Endrin ketone	0.567333	2.0	0.07	16.6667	ND	3.40	7 - 141	20.0	20	M2, R3
Endrin ketone [2C]	0.624000	2.0	0.07	16.6667	ND	3.74	7 - 141	17.9	20	M2
gamma-BHC	4.93417	1.0	0.05	16.6667	ND	29.6	0 - 117	2.06	20	
gamma-BHC [2C]	4.69367	1.0	0.05	16.6667	ND	28.2	0 - 117	0.390	20	
gamma-Chlordane	60.2045	1.0	0.04	16.6667	39.5932	124	0 - 156	3.08	20	
gamma-Chlordane [2C]	5.43317	1.0	0.04	16.6667	0.465333	29.8	0 - 156	3.88	20	
Heptachlor	6.96450	1.0	0.07	16.6667	ND	41.8	3 - 112	2.74	20	
Heptachlor [2C]	6.80250	1.0	0.07	16.6667	ND	40.8	3 - 112	2.50	20	
Heptachlor epoxide	3.67350	1.0	0.04	16.6667	ND	22.0	0 - 118	4.88	20	
Heptachlor epoxide [2C]	3.47150	1.0	0.04	16.6667	ND	20.8	0 - 118	6.53	20	
Methoxychlor	1.12133	5.0	0.10	16.6667	ND	6.73	0 - 161	21.2	20	R3
Methoxychlor [2C]	1.25817	5.0	0.10	16.6667	ND	7.55	0 - 161	18.8	20	
Surrogate: Decachlorobiphenyl	7.424			16.6667		44.5	15 - 100			
Surrogate: Decachlorobiphenyl [	7.173			16.6667		43.0	15 - 100			
Surrogate: Tetrachloro-m-xylene	5.986			16.6667		35.9	16 - 100			
Surrogate: Tetrachloro-m-xylene	6.507			16.6667		39.0	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0218 - GCSEMI_PCB/PEST_S

Blank (B8D0218-BLK1)

Prepared: 4/6/2018 Analyzed: 4/8/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0218 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0218-BLK1) - Continued

Prepared: 4/6/2018 Analyzed: 4/8/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>12.20</i>			<i>16.6667</i>	<i>73.2</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.74</i>			<i>16.6667</i>	<i>70.4</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.08</i>			<i>16.6667</i>	<i>78.5</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>12.74</i>			<i>16.6667</i>	<i>76.4</i>	<i>16 - 100</i>

LCS (B8D0218-BS1)

Prepared: 4/6/2018 Analyzed: 4/8/2018

4,4'-DDD	14.4453	2.0	0.10	16.6667	86.7	62 - 129
4,4'-DDD [2C]	14.3700	2.0	0.10	16.6667	86.2	62 - 129
4,4'-DDE	15.2752	2.0	0.07	16.6667	91.7	65 - 117
4,4'-DDE [2C]	14.4935	2.0	0.07	16.6667	87.0	65 - 117
4,4'-DDT	12.9160	2.0	0.14	16.6667	77.5	35 - 136
4,4'-DDT [2C]	13.6025	2.0	0.14	16.6667	81.6	35 - 136
Aldrin	14.9147	1.0	0.08	16.6667	89.5	67 - 110
Aldrin [2C]	14.2517	1.0	0.08	16.6667	85.5	67 - 110
alpha-BHC	14.3693	1.0	0.04	16.6667	86.2	69 - 110
alpha-BHC [2C]	13.5713	1.0	0.04	16.6667	81.4	69 - 110
alpha-Chlordane	14.5848	1.0	0.04	16.6667	87.5	65 - 114
alpha-Chlordane [2C]	14.1493	1.0	0.04	16.6667	84.9	65 - 114
beta-BHC	13.6702	1.0	0.04	16.6667	82.0	64 - 108
beta-BHC [2C]	13.2965	1.0	0.04	16.6667	79.8	64 - 108
delta-BHC	11.0850	1.0	0.04	16.6667	66.5	44 - 110
delta-BHC [2C]	10.6770	1.0	0.04	16.6667	64.1	44 - 110
Dieldrin	13.5662	2.0	0.05	16.6667	81.4	63 - 107
Dieldrin [2C]	13.4678	2.0	0.05	16.6667	80.8	63 - 107
Endosulfan I	13.9143	1.0	0.04	16.6667	83.5	63 - 103
Endosulfan I [2C]	13.4907	1.0	0.04	16.6667	80.9	63 - 103
Endosulfan II	14.3557	2.0	0.10	16.6667	86.1	62 - 122
Endosulfan II [2C]	14.4398	2.0	0.10	16.6667	86.6	62 - 122
Endosulfan sulfate	13.5247	2.0	0.06	16.6667	81.1	53 - 127
Endosulfan Sulfate [2C]	13.7083	2.0	0.06	16.6667	82.2	53 - 127
Endrin	14.7040	2.0	0.08	16.6667	88.2	66 - 120
Endrin [2C]	14.6715	2.0	0.08	16.6667	88.0	66 - 120
Endrin aldehyde	15.4372	2.0	0.09	16.6667	92.6	67 - 121
Endrin aldehyde [2C]	14.9088	2.0	0.09	16.6667	89.5	67 - 121
Endrin ketone	13.1695	2.0	0.07	16.6667	79.0	41 - 146
Endrin ketone [2C]	13.7588	2.0	0.07	16.6667	82.6	41 - 146
gamma-BHC	13.8617	1.0	0.05	16.6667	83.2	67 - 109
gamma-BHC [2C]	13.3330	1.0	0.05	16.6667	80.0	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0218 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0218-BS1) - Continued

Prepared: 4/6/2018 Analyzed: 4/8/2018

gamma-Chlordane	14.2468	1.0	0.04	16.6667		85.5	63 - 110		
gamma-Chlordane [2C]	13.8453	1.0	0.04	16.6667		83.1	63 - 110		
Heptachlor	14.5737	1.0	0.07	16.6667		87.4	67 - 120		
Heptachlor [2C]	14.4677	1.0	0.07	16.6667		86.8	67 - 120		
Heptachlor epoxide	13.7552	1.0	0.04	16.6667		82.5	62 - 108		
Heptachlor epoxide [2C]	13.4843	1.0	0.04	16.6667		80.9	62 - 108		
Methoxychlor	13.9010	5.0	0.10	16.6667		83.4	47 - 152		
Methoxychlor [2C]	15.4058	5.0	0.10	16.6667		92.4	47 - 152		
Surrogate: Decachlorobiphenyl	12.57			16.6667		75.4	15 - 100		
Surrogate: Decachlorobiphenyl [	12.21			16.6667		73.3	15 - 100		
Surrogate: Tetrachloro-m-xylene	13.23			16.6667		79.4	16 - 100		
Surrogate: Tetrachloro-m-xylene	13.38			16.6667		80.3	16 - 100		

Matrix Spike (B8D0218-MS1)

Source: 1801233-61

Prepared: 4/6/2018 Analyzed: 4/8/2018

4,4'-DDD	11.4520	2.0	0.10	16.6667	ND	68.7	0 - 127		
4,4'-DDD [2C]	11.0007	2.0	0.10	16.6667	ND	66.0	0 - 127		
4,4'-DDE	11.9692	2.0	0.07	16.6667	ND	71.8	0 - 125		
4,4'-DDE [2C]	11.0482	2.0	0.07	16.6667	ND	66.3	0 - 125		
4,4'-DDT	10.7082	2.0	0.14	16.6667	ND	64.2	0 - 103		
4,4'-DDT [2C]	10.7210	2.0	0.14	16.6667	ND	64.3	0 - 103		
Aldrin	11.4648	1.0	0.08	16.6667	ND	68.8	6 - 104		
Aldrin [2C]	10.8173	1.0	0.08	16.6667	ND	64.9	6 - 104		
alpha-BHC	11.2255	1.0	0.04	16.6667	ND	67.4	0 - 114		
alpha-BHC [2C]	10.7105	1.0	0.04	16.6667	ND	64.3	0 - 114		
alpha-Chlordane	11.6772	1.0	0.04	16.6667	ND	70.1	0 - 110		
alpha-Chlordane [2C]	11.8820	1.0	0.04	16.6667	ND	71.3	0 - 110		
beta-BHC	11.2088	1.0	0.04	16.6667	ND	67.3	0 - 129		
beta-BHC [2C]	10.7233	1.0	0.04	16.6667	ND	64.3	0 - 129		
delta-BHC	8.81367	1.0	0.04	16.6667	ND	52.9	18 - 99		
delta-BHC [2C]	8.54117	1.0	0.04	16.6667	ND	51.2	18 - 99		
Dieldrin	10.9243	2.0	0.05	16.6667	ND	65.5	0 - 124		
Dieldrin [2C]	10.3765	2.0	0.05	16.6667	ND	62.3	0 - 124		
Endosulfan I	10.8252	1.0	0.04	16.6667	ND	65.0	0 - 106		
Endosulfan I [2C]	10.2220	1.0	0.04	16.6667	ND	61.3	0 - 106		
Endosulfan II	11.7123	2.0	0.10	16.6667	ND	70.3	20 - 130		
Endosulfan II [2C]	10.5332	2.0	0.10	16.6667	ND	63.2	20 - 130		
Endosulfan sulfate	11.1943	2.0	0.06	16.6667	ND	67.2	24 - 119		
Endosulfan Sulfate [2C]	9.38150	2.0	0.06	16.6667	ND	56.3	24 - 119		
Endrin	11.6455	2.0	0.08	16.6667	ND	69.9	0 - 135		
Endrin [2C]	11.3277	2.0	0.08	16.6667	ND	68.0	0 - 135		
Endrin aldehyde	12.4707	2.0	0.09	16.6667	ND	74.8	19 - 132		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0218 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0218-MS1) - Continued

Source: 1801233-61

Prepared: 4/6/2018 Analyzed: 4/8/2018

Endrin aldehyde [2C]	9.67900	2.0	0.09	16.6667	ND	58.1	19 - 132			
Endrin ketone	10.5468	2.0	0.07	16.6667	ND	63.3	7 - 141			
Endrin ketone [2C]	11.3722	2.0	0.07	16.6667	ND	68.2	7 - 141			
gamma-BHC	11.0103	1.0	0.05	16.6667	ND	66.1	0 - 117			
gamma-BHC [2C]	10.5577	1.0	0.05	16.6667	ND	63.3	0 - 117			
gamma-Chlordane	11.9453	1.0	0.04	16.6667	ND	71.7	0 - 156			
gamma-Chlordane [2C]	10.5435	1.0	0.04	16.6667	ND	63.3	0 - 156			
Heptachlor	11.2968	1.0	0.07	16.6667	ND	67.8	3 - 112			
Heptachlor [2C]	11.0965	1.0	0.07	16.6667	ND	66.6	3 - 112			
Heptachlor epoxide	10.6202	1.0	0.04	16.6667	ND	63.7	0 - 118			
Heptachlor epoxide [2C]	10.3082	1.0	0.04	16.6667	ND	61.8	0 - 118			
Methoxychlor	11.0595	5.0	0.10	16.6667	ND	66.4	0 - 161			
Methoxychlor [2C]	11.6227	5.0	0.10	16.6667	ND	69.7	0 - 161			
Surrogate: Decachlorobiphenyl	9.569			16.6667		57.4	15 - 100			
Surrogate: Decachlorobiphenyl [	8.961			16.6667		53.8	15 - 100			
Surrogate: Tetrachloro-m-xylene	9.610			16.6667		57.7	16 - 100			
Surrogate: Tetrachloro-m-xylene	10.17			16.6667		61.0	16 - 100			

Matrix Spike Dup (B8D0218-MSD1)

Source: 1801233-61

Prepared: 4/6/2018 Analyzed: 4/8/2018

4,4'-DDD	10.6325	2.0	0.10	16.6667	ND	63.8	0 - 127	7.42	20	
4,4'-DDD [2C]	10.5942	2.0	0.10	16.6667	ND	63.6	0 - 127	3.76	20	
4,4'-DDE	11.3657	2.0	0.07	16.6667	ND	68.2	0 - 125	5.17	20	
4,4'-DDE [2C]	10.6173	2.0	0.07	16.6667	ND	63.7	0 - 125	3.98	20	
4,4'-DDT	9.79100	2.0	0.14	16.6667	ND	58.7	0 - 103	8.95	20	
4,4'-DDT [2C]	10.8770	2.0	0.14	16.6667	ND	65.3	0 - 103	1.44	20	
Aldrin	10.9667	1.0	0.08	16.6667	ND	65.8	6 - 104	4.44	20	
Aldrin [2C]	10.5032	1.0	0.08	16.6667	ND	63.0	6 - 104	2.95	20	
alpha-BHC	11.0255	1.0	0.04	16.6667	ND	66.2	0 - 114	1.80	20	
alpha-BHC [2C]	10.4833	1.0	0.04	16.6667	ND	62.9	0 - 114	2.14	20	
alpha-Chlordane	11.1797	1.0	0.04	16.6667	ND	67.1	0 - 110	4.35	20	
alpha-Chlordane [2C]	11.3517	1.0	0.04	16.6667	ND	68.1	0 - 110	4.57	20	
beta-BHC	11.0262	1.0	0.04	16.6667	ND	66.2	0 - 129	1.64	20	
beta-BHC [2C]	10.5108	1.0	0.04	16.6667	ND	63.1	0 - 129	2.00	20	
delta-BHC	8.50967	1.0	0.04	16.6667	ND	51.1	18 - 99	3.51	20	
delta-BHC [2C]	8.33300	1.0	0.04	16.6667	ND	50.0	18 - 99	2.47	20	
Dieldrin	10.2962	2.0	0.05	16.6667	ND	61.8	0 - 124	5.92	20	
Dieldrin [2C]	10.0348	2.0	0.05	16.6667	ND	60.2	0 - 124	3.35	20	
Endosulfan I	10.3602	1.0	0.04	16.6667	ND	62.2	0 - 106	4.39	20	
Endosulfan I [2C]	9.76783	1.0	0.04	16.6667	ND	58.6	0 - 106	4.54	20	
Endosulfan II	10.7300	2.0	0.10	16.6667	ND	64.4	20 - 130	8.75	20	
Endosulfan II [2C]	10.3482	2.0	0.10	16.6667	ND	62.1	20 - 130	1.77	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0218 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0218-MSD1) - Continued

Source: 1801233-61

Prepared: 4/6/2018 Analyzed: 4/8/2018

Endosulfan sulfate	10.5090	2.0	0.06	16.6667	ND	63.1	24 - 119	6.32	20	
Endosulfan Sulfate [2C]	9.09617	2.0	0.06	16.6667	ND	54.6	24 - 119	3.09	20	
Endrin	10.9612	2.0	0.08	16.6667	ND	65.8	0 - 135	6.05	20	
Endrin [2C]	10.9502	2.0	0.08	16.6667	ND	65.7	0 - 135	3.39	20	
Endrin aldehyde	10.8645	2.0	0.09	16.6667	ND	65.2	19 - 132	13.8	20	
Endrin aldehyde [2C]	9.30033	2.0	0.09	16.6667	ND	55.8	19 - 132	3.99	20	
Endrin ketone	10.3282	2.0	0.07	16.6667	ND	62.0	7 - 141	2.09	20	
Endrin ketone [2C]	11.0963	2.0	0.07	16.6667	ND	66.6	7 - 141	2.46	20	
gamma-BHC	10.6740	1.0	0.05	16.6667	ND	64.0	0 - 117	3.10	20	
gamma-BHC [2C]	10.2947	1.0	0.05	16.6667	ND	61.8	0 - 117	2.52	20	
gamma-Chlordane	11.6170	1.0	0.04	16.6667	ND	69.7	0 - 156	2.79	20	
gamma-Chlordane [2C]	10.0457	1.0	0.04	16.6667	ND	60.3	0 - 156	4.84	20	
Heptachlor	10.8703	1.0	0.07	16.6667	ND	65.2	3 - 112	3.85	20	
Heptachlor [2C]	10.8062	1.0	0.07	16.6667	ND	64.8	3 - 112	2.65	20	
Heptachlor epoxide	10.1872	1.0	0.04	16.6667	ND	61.1	0 - 118	4.16	20	
Heptachlor epoxide [2C]	9.92900	1.0	0.04	16.6667	ND	59.6	0 - 118	3.75	20	
Methoxychlor	11.4405	5.0	0.10	16.6667	ND	68.6	0 - 161	3.39	20	
Methoxychlor [2C]	11.2785	5.0	0.10	16.6667	ND	67.7	0 - 161	3.01	20	
Surrogate: Decachlorobiphenyl	9.330			16.6667		56.0	15 - 100			
Surrogate: Decachlorobiphenyl [	8.384			16.6667		50.3	15 - 100			
Surrogate: Tetrachloro-m-xylene	9.706			16.6667		58.2	16 - 100			
Surrogate: Tetrachloro-m-xylene	9.930			16.6667		59.6	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S

Blank (B8D0184-BLK2)

Prepared: 4/5/2018 Analyzed: 4/6/2018

Aroclor 1016	ND	16	4.6
Aroclor 1221	ND	16	4.6
Aroclor 1232	ND	16	4.6
Aroclor 1242	ND	16	4.6
Aroclor 1248	ND	16	4.6
Aroclor 1254	ND	16	4.6
Aroclor 1260	ND	16	4.6
Aroclor 1262	ND	16	4.6
Aroclor 1268	ND	16	4.6

Surrogate: Decachlorobiphenyl	14.68		16.6667	88.1	14 - 109
Surrogate: Tetrachloro-m-xylene	15.98		16.6667	95.9	18 - 114

LCS (B8D0184-BS2)

Prepared: 4/5/2018 Analyzed: 4/6/2018

Aroclor 1016	153.939	16	4.6	166.667	92.4	67 - 120
Aroclor 1260	161.273	16	4.6	166.667	96.8	75 - 125

Surrogate: Decachlorobiphenyl	14.70		16.6667	88.2	14 - 109
Surrogate: Tetrachloro-m-xylene	15.64		16.6667	93.8	18 - 114

Matrix Spike (B8D0184-MS2)

Source: 1801233-69

Prepared: 4/5/2018 Analyzed: 4/6/2018

Aroclor 1016	104.599	16	4.6	166.667	ND	62.8	18 - 133
Aroclor 1260	108.167	16	4.6	166.667	ND	64.9	15 - 145

Surrogate: Decachlorobiphenyl	9.566		16.6667	57.4	14 - 109
Surrogate: Tetrachloro-m-xylene	9.909		16.6667	59.5	18 - 114

Matrix Spike Dup (B8D0184-MSD2)

Source: 1801233-69

Prepared: 4/5/2018 Analyzed: 4/6/2018

Aroclor 1016	109.178	16	4.6	166.667	ND	65.5	18 - 133	4.28	20
Aroclor 1260	107.000	16	4.6	166.667	ND	64.2	15 - 145	1.08	20

Surrogate: Decachlorobiphenyl	9.504		16.6667	57.0	14 - 109
Surrogate: Tetrachloro-m-xylene	9.863		16.6667	59.2	18 - 114



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S

Blank (B8D0186-BLK2)

Prepared: 4/6/2018 Analyzed: 4/6/2018

Aroclor 1016	ND	16	4.6
Aroclor 1221	ND	16	4.6
Aroclor 1232	ND	16	4.6
Aroclor 1242	ND	16	4.6
Aroclor 1248	ND	16	4.6
Aroclor 1254	ND	16	4.6
Aroclor 1260	ND	16	4.6
Aroclor 1262	ND	16	4.6
Aroclor 1268	ND	16	4.6

Surrogate: Decachlorobiphenyl	15.22		16.6667	91.3	14 - 109
Surrogate: Tetrachloro-m-xylene	14.84		16.6667	89.1	18 - 114

LCS (B8D0186-BS2)

Prepared: 4/6/2018 Analyzed: 4/6/2018

Aroclor 1016	148.796	16	4.6	166.667	89.3	67 - 120
Aroclor 1260	161.529	16	4.6	166.667	96.9	75 - 125
Surrogate: Decachlorobiphenyl	16.17			16.6667	97.0	14 - 109
Surrogate: Tetrachloro-m-xylene	15.40			16.6667	92.4	18 - 114

Matrix Spike (B8D0186-MS2)

Source: 1801359-05

Prepared: 4/6/2018 Analyzed: 4/6/2018

Aroclor 1016	132.558	16	4.6	166.667	ND	79.5	18 - 133	
Aroclor 1260	146.471	16	4.6	166.667	ND	87.9	15 - 145	
<i>Surrogate: Decachlorobiphenyl</i>				<i>13.16</i>		<i>16.6667</i>	<i>79.0</i>	<i>14 - 109</i>
<i>Surrogate: Tetrachloro-m-xylene</i>				<i>12.84</i>		<i>16.6667</i>	<i>77.1</i>	<i>18 - 114</i>

Matrix Spike Dup (B8D0186-MSD2)

Source: 1801359-05

Prepared: 4/6/2018 Analyzed: 4/6/2018

Aroclor 1016	135.696	16	4.6	166.667	ND	81.4	18 - 133	2.34	20
Aroclor 1260	150.028	16	4.6	166.667	ND	90.0	15 - 145	2.40	20
<hr/>									
Surrogate: Decachlorobiphenyl	13.27			16.6667		79.6	14 - 109		
Surrogate: Tetrachloro-m-xylene	13.03			16.6667		78.2	18 - 114		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018


Notes and Definitions

S10	Surrogate recovery was outside of laboratory acceptance limit due to possible matrix interference.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

		Site: <u>72nd St. ES</u> Address: <u>7211 Grape St.</u> <u>Los Angeles, CA</u>		Project Manager: <input type="checkbox"/> MALVEY <input checked="" type="checkbox"/> THOMPSON Sampled By: <input type="checkbox"/> MALVEY <input checked="" type="checkbox"/> THOMPSON		LAUSD 4524-SOIL-PROFILE TAT: NORM-RUSH									
Laboratory: <u>ATL</u>		Page <u>1</u> of <u>4</u>													
LABORATORY ID	PINNACLE SAMPLE ID	Sample Time	Sample Date	J=Jar T=Tube V=VOA	EPA 5035 (EnCore)	TPH Full Scan EPA 8015M	VOC EPA 8260B	SVOC EPA 8270C	PCB's EPA 8082	Organo-chlorine Pesticides EPA 8081A	Organo-phosphorous Pesticides EPA 8141A	Chlorinated Herbicides EPA 8151A	Arsenic EPA 6020B	Lead EPA 6010B	Hexavalent Chromium EPA 7199
18012-33-01	PB-1-6"		3/27/18	402J						X			X	X	
-02	PB-1-18"														
-03	PB-1-30"														
-04	PB-2-6"									X			X		
-05	PB-2-18"														
-06	PB-2-30"														
-07	PB-4-6"									X			X		
-08	PB-4-18"														
-09	PB-4-30"														
-10	PB-5-6"														
-11	PB-5-18"									X			X		
-12	PB-5-30"														
-13	PB-7-6"														
-14	PB-7-18"									X			X		
-15	PB-7-30"														
-16	PB-10-6"														
-17	PB-10-18"									X			X		
-18	PB-10-30"														
-19	PB-11-6"														
-20	PB-11-18"									X			X		
Relinquished By: <u>[Signature]</u>		Date/Time: <u>3/27/18</u>		Relinquished By:		Date/Time:		NOTES:							
Received By: <u>[Signature]</u>		Date/Time: <u>3/27/18</u>		Received By:		Date/Time:		15.0°C i/c Dec. on day of sampling 3/27/18							

CHAIN OF CUSTODY RECORD



Site: 92nd St. ES
Address: 9211 Grape St.
 Los Angeles, CA

Project Manager: ☐ MALVEY ☒ THOMPSON
Sampled By: ☐ MALVEY ☒ THOMPSON

Laboratory: AT1

LAUSD 4534-SOIL-PROFILE
TAT (NORM)-RUSH

LABORATORY ID	Sample Time	Sample Date	J=Jar T=Tube V=VOA	EPA 5035 (EnCore)	TPH Full Scan EPA 8015M	VOC EPA 8260B	SVOC EPA 8270C	PCB's EPA 8082	Organo-chlorine Pesticides EPA 8081A	Organo-phosphorous Pesticides EPA 8141A	Chlorinated Herbicides EPA 8151A	Arsenic EPA 6020B	Site Specific EPA 6010B/2420B	Hexavalent Chromium EPA 7199
PB-11-30"		3/27/18												
PB-3-6"								X	X			X	X	
PB-3-18"														
PB-3-30"														
PB-8-6"									X			X	X	
PB-8-18"														
PB-8-30"									X			X	X	
PB-6-6"														
PB-6-18"														
PB-6-30"														
PB-9-6"									X			X	X	
PB-9-18"														
PB-9-30"														
PB-13-6"									X			X	X	
PB-13-18"														
PB-13-30"														
PB-12-6"									X			X	X	
PB-12-18"														
PB-12-30"														
PB-16-6"									X			X	X	

Relinquished By: [Signature] **Date/Time:** 3/27/18 5:00
Received By: [Signature] **Date/Time:** 3/27/18 17:00

NOTES:

CHAIN OF CUSTODY RECORD



Site: 92nd St. ES Address: 9211 Gage St. Los Angeles CA		Project Manager: <input type="checkbox"/> MALVEY <input checked="" type="checkbox"/> THOMPSON Sampled By: <input type="checkbox"/> MALVEY <input checked="" type="checkbox"/> THOMPSON		LAUSD 4524 SOIL PROFILE TAT: NORM - RUSH											
Laboratory: ATJ		Page 3 of 4													
PINNACLE SAMPLE ID	LABORATORY ID	Sample Time	Sample Date	J=Jar T=Tube V=VOA	EPA 5035 (EnCore)	TPH Full Scan EPA 8015M	VOC EPA 8260B	SVOC EPA 8270C	PCB's EPA 8082	Organo- chlorine Pesticides EPA 8081A	Organo- phosphorus Pesticides EPA 8141A	Chlorinated Herbicides EPA 8151A	Arsenic EPA 6020B	Lead EPA 6010B/6010C	Hexavalent Chromium EPA 7199
PB-16-18"	1501233-41		3/27/18	402.5											
PB-16-30"	-42														
PB-19-6"	-43														
PB-19-18"	-44														
PB-19-30"	-45														
PB-15-6"	-46														
PB-15-18"	-47														
PB-15-30"	-48														
PB-18-6"	-49														
PB-18-18"	-50														
PB-18-30"	-51														
PB-17-6"	-52														
PB-17-18"	-53														
PB-17-30"	-54														
PB-29-6"	-55														
PB-29-18"	-57														
PB-29-30"	-57														
PB-28-6"	-58														
PB-28-18"	-59														
PB-28-30"	-60														
Relinquished By: [Signature]		Date/Time: 3/27/18		Relinquished By:		Date/Time:		NOTES:							
Received By: MPR [Signature]		Date/Time: 3/27/18		Received By:		Date/Time:									

Page 135 of 136

TEL: (949) 470-3691
FAX: (949) 595-0459

Dominic Mata

From: Keith Thompson [ktpinnacle@cox.net]
Sent: Wednesday, March 28, 2018 9:11 PM
To: Dominic Mata
Subject: 92nd Street ES

D.,

I'll need to add some analyses on the set of soil samples I delivered on 3/27.

I dropped off three soil samples from each of the 24 borings we completed that day: 6", 18" and 30" sample depths from each boring.

The COC originally requested the analysis of the 6" samples for lead, arsenic and OCPs. I will also need to have the 18" and 30" samples run for those analytes. Same methods.

Some of the 6" samples are to be analyzed for PCBs as well. Also analyze the 18" and 30" samples from the same borings for PCBs. (PB-3, PB-11, PB-31).

Keith Thompson
Pinnacle Environmental Technologies

949-470-3691 (office)
949-887-8247 (mobile)



April 10, 2018

Keith Thompson
Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610
Tel: (949) 470-3691
Fax: (949) 887-8247

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1801250
Client Reference : 92nd St. ES

Enclosed are the results for sample(s) received on March 28, 2018 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 04/10/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SOIL DRUM	1801250-01	Soil	3/27/18 15:00	3/28/18 16:44
WATER DRUM	1801250-02	Water	3/28/18 15:10	3/28/18 16:44



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID SOIL DRUM

Lab ID: 1801250-01

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Arsenic	ND	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Barium	44	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Beryllium	ND	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Cadmium	ND	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Chromium	5.6	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Cobalt	3.6	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Copper	6.0	2.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Lead	1.9	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Molybdenum	ND	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Nickel	4.0	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Selenium	ND	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Silver	ND	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Thallium	ND	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Vanadium	12	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	
Zinc	20	1.0	1	B8D0068	04/03/2018	04/04/18 10:05	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.21	0.10	1	B8D0080	04/03/2018	04/04/18 12:13	

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.1	1	B8C0835	03/29/2018	03/29/18 09:58	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>110 %</i>	<i>50 - 138</i>		B8C0835	03/29/2018	<i>03/29/18 09:58</i>	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8D0130	04/04/2018	04/04/18 21:42	
ORO	ND	10	1	B8D0130	04/04/2018	04/04/18 21:42	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID SOIL DRUM

Lab ID: 1801250-01

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	66.4 %	58 - 172		B8D0130	04/04/2018	04/04/18 21:42	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 17:30	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 17:30	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 17:30	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 17:30	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 17:30	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 17:30	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 17:30	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 17:30	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 17:30	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 17:30	
Surrogate: Decachlorobiphenyl	27.0 %	15 - 100		B8D0244	04/09/2018	04/09/18 17:30	
Surrogate: Tetrachloro-m-xylene	25.6 %	16 - 100		B8D0244	04/09/2018	04/09/18 17:30	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID SOIL DRUM

Lab ID: 1801250-01

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0244	04/09/2018	04/09/18 17:38	
Aroclor 1221	ND	16	1	B8D0244	04/09/2018	04/09/18 17:38	
Aroclor 1232	ND	16	1	B8D0244	04/09/2018	04/09/18 17:38	
Aroclor 1242	ND	16	1	B8D0244	04/09/2018	04/09/18 17:38	
Aroclor 1248	ND	16	1	B8D0244	04/09/2018	04/09/18 17:38	
Aroclor 1254	ND	16	1	B8D0244	04/09/2018	04/09/18 17:38	
Aroclor 1260	ND	16	1	B8D0244	04/09/2018	04/09/18 17:38	
Aroclor 1262	ND	16	1	B8D0244	04/09/2018	04/09/18 17:38	
Aroclor 1268	ND	16	1	B8D0244	04/09/2018	04/09/18 17:38	
<i>Surrogate: Decachlorobiphenyl</i>	<i>58.1 %</i>	<i>14 - 109</i>		B8D0244	04/09/2018	04/09/18 17:38	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>52.7 %</i>	<i>18 - 114</i>		B8D0244	04/09/2018	04/09/18 17:38	

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,1,1-Trichloroethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,1,2,2-Tetrachloroethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,1,2-Trichloroethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,1-Dichloroethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,1-Dichloroethene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,1-Dichloropropene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,2,3-Trichloropropane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,2,3-Trichlorobenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,2,4-Trichlorobenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,2,4-Trimethylbenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,2-Dibromo-3-chloropropane	ND	9.8	1	B8C0844	03/29/2018	03/29/18 15:56	
1,2-Dibromoethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,2-Dichlorobenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,2-Dichloroethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,2-Dichloropropane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,3,5-Trimethylbenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,3-Dichlorobenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,3-Dichloropropane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
1,4-Dichlorobenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
2,2-Dichloropropane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID SOIL DRUM

Lab ID: 1801250-01

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
4-Chlorotoluene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
4-Isopropyltoluene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Benzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Bromobenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Bromochloromethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Bromodichloromethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Bromoform	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Bromomethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Carbon disulfide	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Carbon tetrachloride	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Chlorobenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Chloroethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Chloroform	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Chloromethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
cis-1,2-Dichloroethene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
cis-1,3-Dichloropropene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Di-isopropyl ether	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Dibromochloromethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Dibromomethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Dichlorodifluoromethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Ethyl Acetate	ND	49	1	B8C0844	03/29/2018	03/29/18 15:56	
Ethyl Ether	ND	49	1	B8C0844	03/29/2018	03/29/18 15:56	
Ethyl tert-butyl ether	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Ethylbenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Freon-113	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Hexachlorobutadiene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Isopropylbenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
m,p-Xylene	ND	9.8	1	B8C0844	03/29/2018	03/29/18 15:56	
Methylene chloride	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
MTBE	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
n-Butylbenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
n-Propylbenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Naphthalene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
o-Xylene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
sec-Butylbenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Styrene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID SOIL DRUM

Lab ID: 1801250-01

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
tert-Amyl methyl ether	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
tert-Butanol	ND	98	1	B8C0844	03/29/2018	03/29/18 15:56	
tert-Butylbenzene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Tetrachloroethene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Toluene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
trans-1,2-Dichloroethene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
trans-1,3-Dichloropropene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Trichloroethene	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Trichlorofluoromethane	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
Vinyl acetate	ND	49	1	B8C0844	03/29/2018	03/29/18 15:56	
Vinyl chloride	ND	4.9	1	B8C0844	03/29/2018	03/29/18 15:56	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>125 %</i>	<i>32 - 140</i>		B8C0844	03/29/2018	<i>03/29/18 15:56</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>79.8 %</i>	<i>68 - 131</i>		B8C0844	03/29/2018	<i>03/29/18 15:56</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>108 %</i>	<i>49 - 134</i>		B8C0844	03/29/2018	<i>03/29/18 15:56</i>	
<i>Surrogate: Toluene-d8</i>	<i>95.1 %</i>	<i>75 - 132</i>		B8C0844	03/29/2018	<i>03/29/18 15:56</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID WATER DRUM

Lab ID: 1801250-02

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	0.010	1	B8D0051	04/03/2018	04/03/18 13:41	
Arsenic	0.037	0.010	1	B8D0051	04/03/2018	04/03/18 13:41	
Barium	0.26	0.0030	1	B8D0051	04/03/2018	04/03/18 13:41	
Beryllium	ND	0.0030	1	B8D0051	04/03/2018	04/03/18 13:41	
Cadmium	ND	0.0030	1	B8D0051	04/03/2018	04/03/18 13:41	
Chromium	0.069	0.0030	1	B8D0051	04/03/2018	04/03/18 13:41	
Cobalt	0.023	0.0030	1	B8D0051	04/03/2018	04/03/18 13:41	
Copper	0.14	0.0090	1	B8D0051	04/03/2018	04/03/18 13:41	
Lead	0.026	0.0050	1	B8D0051	04/03/2018	04/03/18 13:41	
Molybdenum	ND	0.0050	1	B8D0051	04/03/2018	04/03/18 13:41	
Nickel	0.042	0.0050	1	B8D0051	04/03/2018	04/03/18 13:41	
Selenium	ND	0.010	1	B8D0051	04/03/2018	04/03/18 13:41	
Silver	ND	0.0030	1	B8D0051	04/03/2018	04/03/18 13:41	
Thallium	ND	0.015	1	B8D0051	04/03/2018	04/03/18 13:41	
Vanadium	0.11	0.0030	1	B8D0051	04/03/2018	04/03/18 13:41	
Zinc	0.38	0.025	1	B8D0051	04/03/2018	04/03/18 13:41	

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: KEK

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	1	B8D0054	04/03/2018	04/03/18 14:34	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	0.21	0.20	1	B8C0845	03/29/2018	03/29/18 09:11	
Surrogate: 4-Bromofluorobenzene	104 %	70 - 130		B8C0845	03/29/2018	03/29/18 09:11	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	0.29	0.20	1	B8D0028	04/02/2018	04/03/18 17:32	
ORO	0.22	0.20	1	B8D0028	04/02/2018	04/03/18 17:32	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID WATER DRUM

Lab ID: 1801250-02

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	50.1 %	32 - 169		B8D0028	04/02/2018	04/03/18 17:32	

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,1,1-Trichloroethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,1,2,2-Tetrachloroethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,1,2-Trichloroethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,1-Dichloroethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,1-Dichloroethene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,1-Dichloropropene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,2,3-Trichloropropane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,2,3-Trichlorobenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,2,4-Trichlorobenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,2,4-Trimethylbenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,2-Dibromo-3-chloropropane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,2-Dibromoethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,2-Dichlorobenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,2-Dichloroethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,2-Dichloropropane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,3,5-Trimethylbenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,3-Dichlorobenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,3-Dichloropropane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
1,4-Dichlorobenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
2,2-Dichloropropane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
2-Chlorotoluene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
4-Chlorotoluene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
4-Isopropyltoluene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Benzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Bromobenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Bromochloromethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Bromodichloromethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Bromoform	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Bromomethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Carbon disulfide	ND	5.0	5	B8C0854	03/29/2018	03/29/18 18:26	D7



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID WATER DRUM

Lab ID: 1801250-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Carbon tetrachloride	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Chlorobenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Chloroethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Chloroform	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Chloromethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
cis-1,2-Dichloroethene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
cis-1,3-Dichloropropene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Di-isopropyl ether	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Dibromochloromethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Dibromomethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Dichlorodifluoromethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Ethyl Acetate	ND	50	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Ethyl Ether	ND	50	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Ethyl tert-butyl ether	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Ethylbenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Freon-113	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Hexachlorobutadiene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Isopropylbenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
m,p-Xylene	ND	5.0	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Methylene chloride	ND	5.0	5	B8C0854	03/29/2018	03/29/18 18:26	D7
MTBE	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
n-Butylbenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
n-Propylbenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Naphthalene	3.2	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
o-Xylene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
sec-Butylbenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Styrene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
tert-Amyl methyl ether	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
tert-Butanol	ND	50	5	B8C0854	03/29/2018	03/29/18 18:26	D7
tert-Butylbenzene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Tetrachloroethene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Toluene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
trans-1,2-Dichloroethene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
trans-1,3-Dichloropropene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Trichloroethene	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Trichlorofluoromethane	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Vinyl acetate	ND	50	5	B8C0854	03/29/2018	03/29/18 18:26	D7



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID WATER DRUM

Lab ID: 1801250-02

Volatile Organic Compounds by EPA 8260B

Analyst: QP

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl chloride	ND	2.5	5	B8C0854	03/29/2018	03/29/18 18:26	D7
Surrogate: 1,2-Dichloroethane-d4	100 %	74 - 132		B8C0854	03/29/2018	03/29/18 18:26	
Surrogate: 4-Bromofluorobenzene	95.7 %	82 - 123		B8C0854	03/29/2018	03/29/18 18:26	
Surrogate: Dibromofluoromethane	169 %	76 - 135		B8C0854	03/29/2018	03/29/18 18:26	S5
Surrogate: Toluene-d8	109 %	85 - 125		B8C0854	03/29/2018	03/29/18 18:26	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0051 - EPA 3010A_W

Blank (B8D0051-BLK1)

Prepared: 4/3/2018 Analyzed: 4/3/2018

Antimony	ND	0.010	0.0088
Arsenic	ND	0.010	0.0078
Barium	ND	0.0030	0.0026
Beryllium	ND	0.0030	0.0016
Cadmium	ND	0.0030	0.0024
Chromium	ND	0.0030	0.0020
Cobalt	ND	0.0030	0.0016
Copper	ND	0.0090	0.0038
Lead	ND	0.0050	0.0047
Molybdenum	ND	0.0050	0.0030
Nickel	ND	0.0050	0.0046
Selenium	ND	0.010	0.0093
Silver	ND	0.0030	0.0024
Thallium	ND	0.015	0.0085
Vanadium	ND	0.0030	0.0022
Zinc	ND	0.025	0.0057

LCS (B8D0051-BS1)

Prepared: 4/3/2018 Analyzed: 4/3/2018

Antimony	1.00838	0.010	0.0088	1.00000	101	80 - 120
Arsenic	0.965135	0.010	0.0078	1.00000	96.5	80 - 120
Barium	0.995407	0.0030	0.0026	1.00000	99.5	80 - 120
Beryllium	0.979500	0.0030	0.0016	1.00000	97.9	80 - 120
Cadmium	0.963978	0.0030	0.0024	1.00000	96.4	80 - 120
Chromium	0.984738	0.0030	0.0020	1.00000	98.5	80 - 120
Cobalt	0.992982	0.0030	0.0016	1.00000	99.3	80 - 120
Copper	1.01340	0.0090	0.0038	1.00000	101	80 - 120
Lead	0.961725	0.0050	0.0047	1.00000	96.2	80 - 120
Molybdenum	0.970776	0.0050	0.0030	1.00000	97.1	80 - 120
Nickel	0.975507	0.0050	0.0046	1.00000	97.6	80 - 120
Selenium	0.941519	0.010	0.0093	1.00000	94.2	80 - 120
Silver	0.976525	0.0030	0.0024	1.00000	97.7	80 - 120
Thallium	0.980904	0.015	0.0085	1.00000	98.1	80 - 120
Vanadium	0.988605	0.0030	0.0022	1.00000	98.9	80 - 120
Zinc	0.943305	0.025	0.0057	1.00000	94.3	80 - 120

Matrix Spike (B8D0051-MS1)

Source: 1801280-36

Prepared: 4/3/2018 Analyzed: 4/3/2018

Antimony	2.43420	0.010	0.0088	2.50000	ND	97.4	60 - 130
Arsenic	2.37152	0.010	0.0078	2.50000	ND	94.9	69 - 123
Barium	2.36814	0.0030	0.0026	2.50000	ND	94.7	67 - 129
Beryllium	2.44609	0.0030	0.0016	2.50000	ND	97.8	74 - 120



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0051 - EPA 3010A_W (continued)

Matrix Spike (B8D0051-MS1) - Continued

Source: 1801280-36

Prepared: 4/3/2018 Analyzed: 4/3/2018

Cadmium	2.29794	0.0030	0.0024	2.50000	ND	91.9	69 - 116			
Chromium	2.32370	0.0030	0.0020	2.50000	ND	92.9	74 - 120			
Cobalt	2.54471	0.0030	0.0016	2.50000	ND	102	70 - 116			
Copper	2.42308	0.0090	0.0038	2.50000	0.004518	96.7	76 - 123			
Lead	2.37751	0.0050	0.0047	2.50000	ND	95.1	69 - 117			
Molybdenum	2.46707	0.0050	0.0030	2.50000	ND	98.7	68 - 120			
Nickel	2.36508	0.0050	0.0046	2.50000	ND	94.6	70 - 115			
Selenium	2.32664	0.010	0.0093	2.50000	ND	93.1	66 - 120			
Silver	2.32504	0.0030	0.0024	2.50000	ND	93.0	73 - 123			
Thallium	2.41691	0.015	0.0085	2.50000	ND	96.7	57 - 124			
Vanadium	2.35227	0.0030	0.0022	2.50000	0.00621	93.8	72 - 123			
Zinc	2.25235	0.025	0.0057	2.50000	ND	90.1	73 - 111			

Matrix Spike Dup (B8D0051-MSD1)

Source: 1801280-36

Prepared: 4/3/2018 Analyzed: 4/3/2018

Antimony	2.44619	0.010	0.0088	2.50000	ND	97.8	60 - 130	0.491	20	
Arsenic	2.39824	0.010	0.0078	2.50000	ND	95.9	69 - 123	1.12	20	
Barium	2.42261	0.0030	0.0026	2.50000	ND	96.9	67 - 129	2.27	20	
Beryllium	2.48044	0.0030	0.0016	2.50000	ND	99.2	74 - 120	1.39	20	
Cadmium	2.35926	0.0030	0.0024	2.50000	ND	94.4	69 - 116	2.63	20	
Chromium	2.37199	0.0030	0.0020	2.50000	ND	94.9	74 - 120	2.06	20	
Cobalt	2.57576	0.0030	0.0016	2.50000	ND	103	70 - 116	1.21	20	
Copper	2.43472	0.0090	0.0038	2.50000	0.004518	97.2	76 - 123	0.479	20	
Lead	2.40705	0.0050	0.0047	2.50000	ND	96.3	69 - 117	1.23	20	
Molybdenum	2.48972	0.0050	0.0030	2.50000	ND	99.6	68 - 120	0.914	20	
Nickel	2.41874	0.0050	0.0046	2.50000	ND	96.7	70 - 115	2.24	20	
Selenium	2.34799	0.010	0.0093	2.50000	ND	93.9	66 - 120	0.914	20	
Silver	2.34364	0.0030	0.0024	2.50000	ND	93.7	73 - 123	0.797	20	
Thallium	2.45174	0.015	0.0085	2.50000	ND	98.1	57 - 124	1.43	20	
Vanadium	2.39057	0.0030	0.0022	2.50000	0.00621	95.4	72 - 123	1.61	20	
Zinc	2.31421	0.025	0.0057	2.50000	ND	92.6	73 - 111	2.71	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0068 - EPA 3050B_S

Blank (B8D0068-BLK1)

Prepared: 4/3/2018 Analyzed: 4/4/2018

Antimony	ND	2.0	0.51
Arsenic	ND	1.0	0.12
Barium	ND	1.0	0.12
Beryllium	ND	1.0	0.03
Cadmium	ND	1.0	0.14
Chromium	ND	1.0	0.26
Cobalt	ND	1.0	0.07
Copper	ND	2.0	0.19
Lead	ND	1.0	0.18
Molybdenum	ND	1.0	0.12
Nickel	ND	1.0	0.18
Selenium	ND	1.0	0.40
Silver	ND	1.0	0.12
Thallium	ND	1.0	0.38
Vanadium	ND	1.0	0.06
Zinc	ND	1.0	0.15

LCS (B8D0068-BS1)

Prepared: 4/3/2018 Analyzed: 4/4/2018

Antimony	44.4439	2.0	0.51	50.0000	88.9	80 - 120
Arsenic	42.4612	1.0	0.12	50.0000	84.9	80 - 120
Barium	44.9020	1.0	0.12	50.0000	89.8	80 - 120
Beryllium	43.7570	1.0	0.03	50.0000	87.5	80 - 120
Cadmium	41.2481	1.0	0.14	50.0000	82.5	80 - 120
Chromium	44.8704	1.0	0.26	50.0000	89.7	80 - 120
Cobalt	47.1441	1.0	0.07	50.0000	94.3	80 - 120
Copper	44.5509	2.0	0.19	50.0000	89.1	80 - 120
Lead	43.3591	1.0	0.18	50.0000	86.7	80 - 120
Molybdenum	45.3960	1.0	0.12	50.0000	90.8	80 - 120
Nickel	43.4571	1.0	0.18	50.0000	86.9	80 - 120
Selenium	41.0822	1.0	0.40	50.0000	82.2	80 - 120
Silver	41.8049	1.0	0.12	50.0000	83.6	80 - 120
Thallium	43.5319	1.0	0.38	50.0000	87.1	80 - 120
Vanadium	44.2946	1.0	0.06	50.0000	88.6	80 - 120
Zinc	41.1324	1.0	0.15	50.0000	82.3	80 - 120

Duplicate (B8D0068-DUP1)

Source: 1801096-07

Prepared: 4/3/2018 Analyzed: 4/4/2018

Antimony	ND	2.0	0.51	ND	NR	20	
Arsenic	0.486168	1.0	0.12	0.219937	75.4	20	R
Barium	27.0177	1.0	0.12	27.5725	2.03	20	
Beryllium	ND	1.0	0.03	ND	NR	20	
Cadmium	ND	1.0	0.14	ND	NR	20	
Chromium	5.25658	1.0	0.26	5.29980	0.819	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	--------	-----	--------------	-------

Batch B8D0068 - EPA 3050B_S (continued)

Duplicate (B8D0068-DUP1) - Continued

Source: 1801096-07

Prepared: 4/3/2018 Analyzed: 4/4/2018

Cobalt	2.89703	1.0	0.07		2.98819			3.10	20	
Copper	7.28658	2.0	0.19		7.44929			2.21	20	
Lead	6.76507	1.0	0.18		6.97868			3.11	20	
Molybdenum	ND	1.0	0.12		ND			NR	20	
Nickel	4.92668	1.0	0.18		4.95981			0.670	20	
Selenium	ND	1.0	0.40		ND			NR	20	
Silver	ND	1.0	0.12		ND			NR	20	
Thallium	ND	1.0	0.38		ND			NR	20	
Vanadium	11.0512	1.0	0.06		11.4027			3.13	20	
Zinc	27.0523	1.0	0.15		27.8793			3.01	20	

Matrix Spike (B8D0068-MS1)

Source: 1801096-07

Prepared: 4/3/2018 Analyzed: 4/4/2018

Antimony	90.7514	2.0	0.51	125.000	ND	72.6	28 - 99			
Arsenic	97.5502	1.0	0.12	125.000	0.219937	77.9	49 - 99			
Barium	123.401	1.0	0.12	125.000	27.5725	76.7	19 - 135			
Beryllium	97.7858	1.0	0.03	125.000	ND	78.2	53 - 99			
Cadmium	88.6769	1.0	0.14	125.000	ND	70.9	49 - 95			
Chromium	100.511	1.0	0.26	125.000	5.29980	76.2	41 - 114			
Cobalt	103.199	1.0	0.07	125.000	2.98819	80.2	44 - 106			
Copper	105.984	2.0	0.19	125.000	7.44929	78.8	42 - 120			
Lead	99.2318	1.0	0.18	125.000	6.97868	73.8	36 - 121			
Molybdenum	100.158	1.0	0.12	125.000	ND	80.1	49 - 102			
Nickel	98.4013	1.0	0.18	125.000	4.95981	74.8	45 - 101			
Selenium	93.1587	1.0	0.40	125.000	ND	74.5	50 - 94			
Silver	95.2828	1.0	0.12	125.000	ND	76.2	33 - 120			
Thallium	90.4870	1.0	0.38	125.000	ND	72.4	41 - 95			
Vanadium	106.709	1.0	0.06	125.000	11.4027	76.2	45 - 113			
Zinc	115.406	1.0	0.15	125.000	27.8793	70.0	26 - 117			

Matrix Spike Dup (B8D0068-MSD1)

Source: 1801096-07

Prepared: 4/3/2018 Analyzed: 4/4/2018

Antimony	94.5497	2.0	0.51	125.000	ND	75.6	28 - 99	4.10	20	
Arsenic	101.158	1.0	0.12	125.000	0.219937	80.8	49 - 99	3.63	20	
Barium	130.699	1.0	0.12	125.000	27.5725	82.5	19 - 135	5.74	20	
Beryllium	101.127	1.0	0.03	125.000	ND	80.9	53 - 99	3.36	20	
Cadmium	93.8245	1.0	0.14	125.000	ND	75.1	49 - 95	5.64	20	
Chromium	106.336	1.0	0.26	125.000	5.29980	80.8	41 - 114	5.63	20	
Cobalt	107.077	1.0	0.07	125.000	2.98819	83.3	44 - 106	3.69	20	
Copper	112.341	2.0	0.19	125.000	7.44929	83.9	42 - 120	5.82	20	
Lead	103.867	1.0	0.18	125.000	6.97868	77.5	36 - 121	4.56	20	
Molybdenum	104.550	1.0	0.12	125.000	ND	83.6	49 - 102	4.29	20	
Nickel	103.898	1.0	0.18	125.000	4.95981	79.2	45 - 101	5.43	20	
Selenium	96.8836	1.0	0.40	125.000	ND	77.5	50 - 94	3.92	20	



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 04/10/2018

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0068 - EPA 3050B_S (continued)

Matrix Spike Dup (B8D0068-MSD1) - Continued

Source: 1801096-07

Prepared: 4/3/2018 Analyzed: 4/4/2018

Silver	100.576	1.0	0.12	125.000	ND	80.5	33 - 120	5.41	20	
Thallium	93.8709	1.0	0.38	125.000	ND	75.1	41 - 95	3.67	20	
Vanadium	112.938	1.0	0.06	125.000	11.4027	81.2	45 - 113	5.67	20	
Zinc	120.776	1.0	0.15	125.000	27.8793	74.3	26 - 117	4.55	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0054 - EPA 245.1/7470_W

Blank (B8D0054-BLK1)

Prepared: 4/3/2018 Analyzed: 4/3/2018

Mercury	ND	0.20	0.05
---------	----	------	------

LCS (B8D0054-BS1)

Prepared: 4/3/2018 Analyzed: 4/3/2018

Mercury	10.9615	0.20	0.05	10.0000	110	80 - 120
---------	---------	------	------	---------	-----	----------

Matrix Spike (B8D0054-MS1)

Source: 1801280-36

Prepared: 4/3/2018 Analyzed: 4/3/2018

Mercury	9.54558	0.20	0.05	10.0000	ND	95.5	70 - 130
---------	---------	------	------	---------	----	------	----------

Matrix Spike Dup (B8D0054-MSD1)

Source: 1801280-36

Prepared: 4/3/2018 Analyzed: 4/3/2018

Mercury	10.5522	0.20	0.05	10.0000	ND	106	70 - 130	10.0	20
---------	---------	------	------	---------	----	-----	----------	------	----

Post Spike (B8D0054-PS1)

Source: 1801280-36

Prepared: 4/3/2018 Analyzed: 4/3/2018

Mercury	5.49574			5.00000	-0.013105	110	85 - 115
---------	---------	--	--	---------	-----------	-----	----------



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0080 - EPA 7471_S

Blank (B8D0080-BLK1)

Prepared: 4/3/2018 Analyzed: 4/4/2018

Mercury ND 0.10 0.005

LCS (B8D0080-BS1)

Prepared: 4/3/2018 Analyzed: 4/4/2018

Mercury 0.808962 0.10 0.005 0.833333 97.1 80 - 120

Duplicate (B8D0080-DUP1)

Source: 1801096-07

Prepared: 4/3/2018 Analyzed: 4/4/2018

Mercury 0.106757 0.10 0.005 0.098831 7.71 20

Matrix Spike (B8D0080-MS1)

Source: 1801096-07

Prepared: 4/3/2018 Analyzed: 4/4/2018

Mercury 0.956609 0.10 0.005 0.833333 0.098831 103 70 - 130

Matrix Spike Dup (B8D0080-MSD1)

Source: 1801096-07

Prepared: 4/3/2018 Analyzed: 4/4/2018

Mercury 1.00718 0.10 0.005 0.833333 0.098831 109 70 - 130 5.15 20

Post Spike (B8D0080-PS1)

Source: 1801096-07

Prepared: 4/3/2018 Analyzed: 4/4/2018

Mercury 0.007293 5.00000E-3 0.001186 122 85 - 115 M1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8C0845 - GCVOA_W

Blank (B8C0845-BLK1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

Gasoline Range Organics	ND	0.20	0.05							
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.09135</i>			<i>0.100000</i>		<i>91.3</i>	<i>70 - 130</i>			

LCS (B8C0845-BS1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

Gasoline Range Organics	0.915000	0.20	0.05	1.00000		91.5	70 - 130			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.1038</i>			<i>0.100000</i>		<i>104</i>	<i>70 - 130</i>			

LCS Dup (B8C0845-BSD1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

Gasoline Range Organics	0.851000	0.20	0.05	1.00000		85.1	70 - 130	7.25	20	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.1086</i>			<i>0.100000</i>		<i>109</i>	<i>70 - 130</i>			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8C0835 - GCVOA_S

Blank (B8C0835-BLK1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

Gasoline Range Organics	ND	1.0	0.20							
Surrogate: 4-Bromofluorobenzene	0.2035			0.200000		102	50 - 138			

LCS (B8C0835-BS1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

Gasoline Range Organics	4.79200	1.0	0.20	5.00000		95.8	70 - 130			
Surrogate: 4-Bromofluorobenzene	0.2148			0.200000		107	50 - 138			

LCS Dup (B8C0835-BSD1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

Gasoline Range Organics	4.69500	1.0	0.20	5.00000		93.9	70 - 130	2.04	20	
Surrogate: 4-Bromofluorobenzene	0.2122			0.200000		106	50 - 138			

Duplicate (B8C0835-DUP1)

Source: 1801261-04

Prepared: 3/29/2018 Analyzed: 3/29/2018

Gasoline Range Organics	ND	1.0	0.20		ND			NR	20	
Surrogate: 4-Bromofluorobenzene	0.2071			0.200000		104	50 - 138			

Matrix Spike (B8C0835-MS1)

Source: 1801261-04

Prepared: 3/29/2018 Analyzed: 3/29/2018

Gasoline Range Organics	4.18600	1.0	0.20	5.00000	ND	83.7	17 - 141			
Surrogate: 4-Bromofluorobenzene	0.1979			0.200000		99.0	50 - 138			

Matrix Spike Dup (B8C0835-MSD1)

Source: 1801261-04

Prepared: 3/29/2018 Analyzed: 3/29/2018

Gasoline Range Organics	4.50800	1.0	0.20	5.00000	ND	90.2	17 - 141	7.41	20	
Surrogate: 4-Bromofluorobenzene	0.2169			0.200000		108	50 - 138			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0028 - GCSEMI_DRO_W

Blank (B8D0028-BLK1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

DRO	ND	0.20	0.20							
ORO	ND	0.20	0.20							

Surrogate: <i>p</i> -Terphenyl	0.08326			8.00000E-2		104	32 - 169			
--------------------------------	---------	--	--	------------	--	-----	----------	--	--	--

LCS (B8D0028-BS1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

DRO	1.01389	0.20	0.20	1.00000		101	45 - 161			
Surrogate: <i>p</i> -Terphenyl	0.07633			8.00000E-2		95.4	32 - 169			

Matrix Spike (B8D0028-MS1)

Source: 1801268-05

Prepared: 4/2/2018 Analyzed: 4/3/2018

DRO	11.1080	2.0	2.0	1.00000	10.4049	70.3	45 - 161			
Surrogate: <i>p</i> -Terphenyl	0.000			8.00000E-2		NR	32 - 169			S4

Matrix Spike Dup (B8D0028-MSD1)

Source: 1801268-05

Prepared: 4/2/2018 Analyzed: 4/3/2018

DRO	11.0719	2.0	2.0	1.00000	10.4049	66.7	45 - 161	0.326	20	
Surrogate: <i>p</i> -Terphenyl	0.000			8.00000E-2		NR	32 - 169			S4



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0130 - GCSEMI_DRO_S

Blank (B8D0130-BLK1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

DRO	ND	10	10
ORO	ND	10	10

Surrogate: <i>p</i> -Terphenyl	72.51		80.0000	90.6	58 - 172
--------------------------------	-------	--	---------	------	----------

LCS (B8D0130-BS1)

Prepared: 4/4/2018 Analyzed: 4/4/2018

DRO	1098.00	10	10	1000.00	110	71 - 165
Surrogate: <i>p</i> -Terphenyl	74.34			80.0000	92.9	58 - 172

Matrix Spike (B8D0130-MS1)

Source: 1801263-01

Prepared: 4/4/2018 Analyzed: 4/4/2018

DRO	1047.43	10	10	1000.00	ND	105	61 - 171
Surrogate: <i>p</i> -Terphenyl	72.67			80.0000		90.8	58 - 172

Matrix Spike Dup (B8D0130-MSD1)

Source: 1801263-01

Prepared: 4/4/2018 Analyzed: 4/4/2018

DRO	1049.64	10	10	1000.00	ND	105	61 - 171	0.211	20
Surrogate: <i>p</i> -Terphenyl	68.71			80.0000		85.9	58 - 172		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S

Blank (B8D0244-BLK1)

Prepared: 4/9/2018 Analyzed: 4/9/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0244-BLK1) - Continued

Prepared: 4/9/2018 Analyzed: 4/9/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>12.82</i>			<i>16.6667</i>	<i>76.9</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.60</i>			<i>16.6667</i>	<i>69.6</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>14.32</i>			<i>16.6667</i>	<i>85.9</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>14.29</i>			<i>16.6667</i>	<i>85.8</i>	<i>16 - 100</i>

LCS (B8D0244-BS1)

Prepared: 4/9/2018 Analyzed: 4/9/2018

4,4'-DDD	14.3397	2.0	0.10	16.6667	86.0	62 - 129
4,4'-DDD [2C]	12.5295	2.0	0.10	16.6667	75.2	62 - 129
4,4'-DDE	14.9615	2.0	0.07	16.6667	89.8	65 - 117
4,4'-DDE [2C]	12.5048	2.0	0.07	16.6667	75.0	65 - 117
4,4'-DDT	13.0780	2.0	0.14	16.6667	78.5	35 - 136
4,4'-DDT [2C]	11.4005	2.0	0.14	16.6667	68.4	35 - 136
Aldrin	14.2493	1.0	0.08	16.6667	85.5	67 - 110
Aldrin [2C]	12.7077	1.0	0.08	16.6667	76.2	67 - 110
alpha-BHC	13.9228	1.0	0.04	16.6667	83.5	69 - 110
alpha-BHC [2C]	12.1860	1.0	0.04	16.6667	73.1	69 - 110
alpha-Chlordane	14.3455	1.0	0.04	16.6667	86.1	65 - 114
alpha-Chlordane [2C]	12.2143	1.0	0.04	16.6667	73.3	65 - 114
beta-BHC	14.1187	1.0	0.04	16.6667	84.7	64 - 108
beta-BHC [2C]	11.6170	1.0	0.04	16.6667	69.7	64 - 108
delta-BHC	10.9843	1.0	0.04	16.6667	65.9	44 - 110
delta-BHC [2C]	9.25950	1.0	0.04	16.6667	55.6	44 - 110
Dieldrin	13.3093	2.0	0.05	16.6667	79.9	63 - 107
Dieldrin [2C]	12.1322	2.0	0.05	16.6667	72.8	63 - 107
Endosulfan I	13.5017	1.0	0.04	16.6667	81.0	63 - 103
Endosulfan I [2C]	11.4925	1.0	0.04	16.6667	69.0	63 - 103
Endosulfan II	14.4310	2.0	0.10	16.6667	86.6	62 - 122
Endosulfan II [2C]	12.6200	2.0	0.10	16.6667	75.7	62 - 122
Endosulfan sulfate	12.8602	2.0	0.06	16.6667	77.2	53 - 127
Endosulfan Sulfate [2C]	11.1868	2.0	0.06	16.6667	67.1	53 - 127
Endrin	14.1927	2.0	0.08	16.6667	85.2	66 - 120
Endrin [2C]	13.1065	2.0	0.08	16.6667	78.6	66 - 120
Endrin aldehyde	15.1723	2.0	0.09	16.6667	91.0	67 - 121
Endrin aldehyde [2C]	12.8200	2.0	0.09	16.6667	76.9	67 - 121
Endrin ketone	13.0005	2.0	0.07	16.6667	78.0	41 - 146
Endrin ketone [2C]	11.5202	2.0	0.07	16.6667	69.1	41 - 146
gamma-BHC	13.4533	1.0	0.05	16.6667	80.7	67 - 109
gamma-BHC [2C]	12.3285	1.0	0.05	16.6667	74.0	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0244-BS1) - Continued

Prepared: 4/9/2018 Analyzed: 4/9/2018

gamma-Chlordane	13.9192	1.0	0.04	16.6667		83.5	63 - 110		
gamma-Chlordane [2C]	11.8362	1.0	0.04	16.6667		71.0	63 - 110		
Heptachlor	13.5073	1.0	0.07	16.6667		81.0	67 - 120		
Heptachlor [2C]	11.6837	1.0	0.07	16.6667		70.1	67 - 120		
Heptachlor epoxide	13.5318	1.0	0.04	16.6667		81.2	62 - 108		
Heptachlor epoxide [2C]	11.2503	1.0	0.04	16.6667		67.5	62 - 108		
Methoxychlor	13.3893	5.0	0.10	16.6667		80.3	47 - 152		
Methoxychlor [2C]	12.8393	5.0	0.10	16.6667		77.0	47 - 152		
Surrogate: Decachlorobiphenyl	12.29			16.6667		73.7	15 - 100		
Surrogate: Decachlorobiphenyl [	10.06			16.6667		60.3	15 - 100		
Surrogate: Tetrachloro-m-xylene	13.94			16.6667		83.7	16 - 100		
Surrogate: Tetrachloro-m-xylene	12.04			16.6667		72.2	16 - 100		

Matrix Spike (B8D0244-MS1)

Source: 1801260-57

Prepared: 4/9/2018 Analyzed: 4/9/2018

4,4'-DDD	13.9487	2.0	0.10	16.6667	ND	83.7	0 - 127		
4,4'-DDD [2C]	9.84200	2.0	0.10	16.6667	ND	59.1	0 - 127		
4,4'-DDE	14.6663	2.0	0.07	16.6667	ND	88.0	0 - 125		
4,4'-DDE [2C]	8.76400	2.0	0.07	16.6667	ND	52.6	0 - 125		
4,4'-DDT	12.8013	2.0	0.14	16.6667	ND	76.8	0 - 103		
4,4'-DDT [2C]	8.40650	2.0	0.14	16.6667	ND	50.4	0 - 103		
Aldrin	13.5608	1.0	0.08	16.6667	ND	81.4	6 - 104		
Aldrin [2C]	9.91083	1.0	0.08	16.6667	ND	59.5	6 - 104		
alpha-BHC	13.6262	1.0	0.04	16.6667	ND	81.8	0 - 114		
alpha-BHC [2C]	10.6572	1.0	0.04	16.6667	ND	63.9	0 - 114		
alpha-Chlordane	13.7653	1.0	0.04	16.6667	ND	82.6	0 - 110		
alpha-Chlordane [2C]	9.28200	1.0	0.04	16.6667	ND	55.7	0 - 110		
beta-BHC	14.0998	1.0	0.04	16.6667	ND	84.6	0 - 129		
beta-BHC [2C]	10.4430	1.0	0.04	16.6667	ND	62.7	0 - 129		
delta-BHC	10.8418	1.0	0.04	16.6667	ND	65.1	18 - 99		
delta-BHC [2C]	7.13317	1.0	0.04	16.6667	ND	42.8	18 - 99		
Dieldrin	12.9223	2.0	0.05	16.6667	ND	77.5	0 - 124		
Dieldrin [2C]	9.20800	2.0	0.05	16.6667	ND	55.2	0 - 124		
Endosulfan I	12.9117	1.0	0.04	16.6667	ND	77.5	0 - 106		
Endosulfan I [2C]	8.73750	1.0	0.04	16.6667	ND	52.4	0 - 106		
Endosulfan II	13.9325	2.0	0.10	16.6667	ND	83.6	20 - 130		
Endosulfan II [2C]	9.40183	2.0	0.10	16.6667	ND	56.4	20 - 130		
Endosulfan sulfate	12.3315	2.0	0.06	16.6667	ND	74.0	24 - 119		
Endosulfan Sulfate [2C]	8.41350	2.0	0.06	16.6667	ND	50.5	24 - 119		
Endrin	13.7277	2.0	0.08	16.6667	ND	82.4	0 - 135		
Endrin [2C]	9.69333	2.0	0.08	16.6667	ND	58.2	0 - 135		
Endrin aldehyde	14.7023	2.0	0.09	16.6667	ND	88.2	19 - 132		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0244-MS1) - Continued

Source: 1801260-57

Prepared: 4/9/2018 Analyzed: 4/9/2018

Endrin aldehyde [2C]	9.59500	2.0	0.09	16.6667	ND	57.6	19 - 132		
Endrin ketone	12.6647	2.0	0.07	16.6667	ND	76.0	7 - 141		
Endrin ketone [2C]	8.52983	2.0	0.07	16.6667	ND	51.2	7 - 141		
gamma-BHC	13.1603	1.0	0.05	16.6667	ND	79.0	0 - 117		
gamma-BHC [2C]	10.5335	1.0	0.05	16.6667	ND	63.2	0 - 117		
gamma-Chlordane	13.2713	1.0	0.04	16.6667	ND	79.6	0 - 156		
gamma-Chlordane [2C]	10.9535	1.0	0.04	16.6667	ND	65.7	0 - 156		
Heptachlor	12.9990	1.0	0.07	16.6667	ND	78.0	3 - 112		
Heptachlor [2C]	9.42967	1.0	0.07	16.6667	ND	56.6	3 - 112		
Heptachlor epoxide	13.0777	1.0	0.04	16.6667	ND	78.5	0 - 118		
Heptachlor epoxide [2C]	8.39217	1.0	0.04	16.6667	ND	50.4	0 - 118		
Methoxychlor	13.6900	5.0	0.10	16.6667	ND	82.1	0 - 161		
Methoxychlor [2C]	10.0615	5.0	0.10	16.6667	ND	60.4	0 - 161		

Surrogate: Decachlorobiphenyl	10.22			16.6667		61.3	15 - 100		
Surrogate: Decachlorobiphenyl [	6.307			16.6667		37.8	15 - 100		
Surrogate: Tetrachloro-m-xylene	10.67			16.6667		64.0	16 - 100		
Surrogate: Tetrachloro-m-xylene	8.261			16.6667		49.6	16 - 100		

Matrix Spike Dup (B8D0244-MSD1)

Source: 1801260-57

Prepared: 4/9/2018 Analyzed: 4/9/2018

4,4'-DDD	13.6612	2.0	0.10	16.6667	ND	82.0	0 - 127	2.08	20
4,4'-DDD [2C]	9.97117	2.0	0.10	16.6667	ND	59.8	0 - 127	1.30	20
4,4'-DDE	14.3085	2.0	0.07	16.6667	ND	85.9	0 - 125	2.47	20
4,4'-DDE [2C]	8.83850	2.0	0.07	16.6667	ND	53.0	0 - 125	0.846	20
4,4'-DDT	12.5025	2.0	0.14	16.6667	ND	75.0	0 - 103	2.36	20
4,4'-DDT [2C]	8.45400	2.0	0.14	16.6667	ND	50.7	0 - 103	0.563	20
Aldrin	13.3068	1.0	0.08	16.6667	ND	79.8	6 - 104	1.89	20
Aldrin [2C]	9.58983	1.0	0.08	16.6667	ND	57.5	6 - 104	3.29	20
alpha-BHC	13.4125	1.0	0.04	16.6667	ND	80.5	0 - 114	1.58	20
alpha-BHC [2C]	9.80950	1.0	0.04	16.6667	ND	58.9	0 - 114	8.28	20
alpha-Chlordane	13.4557	1.0	0.04	16.6667	ND	80.7	0 - 110	2.28	20
alpha-Chlordane [2C]	9.39033	1.0	0.04	16.6667	ND	56.3	0 - 110	1.16	20
beta-BHC	13.8748	1.0	0.04	16.6667	ND	83.2	0 - 129	1.61	20
beta-BHC [2C]	9.60683	1.0	0.04	16.6667	ND	57.6	0 - 129	8.34	20
delta-BHC	10.6422	1.0	0.04	16.6667	ND	63.9	18 - 99	1.86	20
delta-BHC [2C]	6.90033	1.0	0.04	16.6667	ND	41.4	18 - 99	3.32	20
Dieldrin	12.6283	2.0	0.05	16.6667	ND	75.8	0 - 124	2.30	20
Dieldrin [2C]	9.33383	2.0	0.05	16.6667	ND	56.0	0 - 124	1.36	20
Endosulfan I	12.6030	1.0	0.04	16.6667	ND	75.6	0 - 106	2.42	20
Endosulfan I [2C]	8.81167	1.0	0.04	16.6667	ND	52.9	0 - 106	0.845	20
Endosulfan II	13.6038	2.0	0.10	16.6667	ND	81.6	20 - 130	2.39	20
Endosulfan II [2C]	9.57933	2.0	0.10	16.6667	ND	57.5	20 - 130	1.87	20



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0244-MSD1) - Continued

Source: 1801260-57

Prepared: 4/9/2018 Analyzed: 4/9/2018

Endosulfan sulfate	12.2010	2.0	0.06	16.6667	ND	73.2	24 - 119	1.06	20	
Endosulfan Sulfate [2C]	8.29083	2.0	0.06	16.6667	ND	49.7	24 - 119	1.47	20	
Endrin	13.4075	2.0	0.08	16.6667	ND	80.4	0 - 135	2.36	20	
Endrin [2C]	9.69767	2.0	0.08	16.6667	ND	58.2	0 - 135	0.0447	20	
Endrin aldehyde	14.5327	2.0	0.09	16.6667	ND	87.2	19 - 132	1.16	20	
Endrin aldehyde [2C]	9.74383	2.0	0.09	16.6667	ND	58.5	19 - 132	1.54	20	
Endrin ketone	12.3032	2.0	0.07	16.6667	ND	73.8	7 - 141	2.90	20	
Endrin ketone [2C]	8.90333	2.0	0.07	16.6667	ND	53.4	7 - 141	4.28	20	
gamma-BHC	12.9525	1.0	0.05	16.6667	ND	77.7	0 - 117	1.59	20	
gamma-BHC [2C]	10.1868	1.0	0.05	16.6667	ND	61.1	0 - 117	3.35	20	
gamma-Chlordane	12.9543	1.0	0.04	16.6667	ND	77.7	0 - 156	2.42	20	
gamma-Chlordane [2C]	11.2740	1.0	0.04	16.6667	ND	67.6	0 - 156	2.88	20	
Heptachlor	12.7392	1.0	0.07	16.6667	ND	76.4	3 - 112	2.02	20	
Heptachlor [2C]	8.66367	1.0	0.07	16.6667	ND	52.0	3 - 112	8.47	20	
Heptachlor epoxide	12.7693	1.0	0.04	16.6667	ND	76.6	0 - 118	2.39	20	
Heptachlor epoxide [2C]	8.48017	1.0	0.04	16.6667	ND	50.9	0 - 118	1.04	20	
Methoxychlor	12.7902	5.0	0.10	16.6667	ND	76.7	0 - 161	6.80	20	
Methoxychlor [2C]	9.98583	5.0	0.10	16.6667	ND	59.9	0 - 161	0.755	20	
Surrogate: Decachlorobiphenyl	10.07			16.6667		60.4	15 - 100			
Surrogate: Decachlorobiphenyl [	6.402			16.6667		38.4	15 - 100			
Surrogate: Tetrachloro-m-xylene	10.57			16.6667		63.4	16 - 100			
Surrogate: Tetrachloro-m-xylene	8.225			16.6667		49.4	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S

Blank (B8D0244-BLK2)

Prepared: 4/9/2018 Analyzed: 4/9/2018

Aroclor 1016	ND	16	4.6
Aroclor 1221	ND	16	4.6
Aroclor 1232	ND	16	4.6
Aroclor 1242	ND	16	4.6
Aroclor 1248	ND	16	4.6
Aroclor 1254	ND	16	4.6
Aroclor 1260	ND	16	4.6
Aroclor 1262	ND	16	4.6
Aroclor 1268	ND	16	4.6

Surrogate: Decachlorobiphenyl	16.06		16.6667	96.3	14 - 109
Surrogate: Tetrachloro-m-xylene	15.53		16.6667	93.2	18 - 114

LCS (B8D0244-BS2)

Prepared: 4/9/2018 Analyzed: 4/9/2018

Aroclor 1016	155.193	16	4.6	166.667	93.1	67 - 120
Aroclor 1260	166.854	16	4.6	166.667	100	75 - 125
<i>Surrogate: Decachlorobiphenyl</i>	<i>16.79</i>			<i>16.6667</i>	<i>101</i>	<i>14 - 109</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>15.88</i>			<i>16.6667</i>	<i>95.3</i>	<i>18 - 114</i>

Matrix Spike (B8D0244-MS2)

Source: 1801250-01

Prepared: 4/9/2018 Analyzed: 4/9/2018

Aroclor 1016	123.320	16	4.6	166.667	ND	74.0	18 - 133
Aroclor 1260	130.119	16	4.6	166.667	ND	78.1	15 - 145
<hr/>							
Surrogate: Decachlorobiphenyl	10.69			16.6667		64.1	14 - 109
Surrogate: Tetrachloro-m-xylene	9.953			16.6667		59.7	18 - 114

Matrix Spike Dup (B8D0244-MSD2)

Source: 1801250-01

Prepared: 4/9/2018 Analyzed: 4/9/2018

Aroclor 1016	124.374	16	4.6	166.667	ND	74.6	18 - 133	0.850	20
Aroclor 1260	128.911	16	4.6	166.667	ND	77.3	15 - 145	0.933	20
<hr/>									
Surrogate: Decachlorobiphenyl	10.57			16.6667		63.4	14 - 109		
Surrogate: Tetrachloro-m-xylene	9.942			16.6667		59.7	18 - 114		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8C0854 - MSVOA_W

Blank (B8C0854-BLK1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

1,1,1,2-Tetrachloroethane	ND	0.50	0.13
1,1,1-Trichloroethane	ND	0.50	0.38
1,1,2,2-Tetrachloroethane	ND	0.50	0.20
1,1,2-Trichloroethane	ND	0.50	0.19
1,1-Dichloroethane	ND	0.50	0.20
1,1-Dichloroethene	ND	0.50	0.28
1,1-Dichloropropene	ND	0.50	0.36
1,2,3-Trichloropropane	ND	0.50	0.16
1,2,3-Trichlorobenzene	ND	0.50	0.06
1,2,4-Trichlorobenzene	ND	0.50	0.07
1,2,4-Trimethylbenzene	ND	0.50	0.09
1,2-Dibromo-3-chloropropane	ND	0.50	0.20
1,2-Dibromoethane	ND	0.50	0.13
1,2-Dichlorobenzene	ND	0.50	0.12
1,2-Dichloroethane	ND	0.50	0.39
1,2-Dichloropropane	ND	0.50	0.47
1,3,5-Trimethylbenzene	ND	0.50	0.08
1,3-Dichlorobenzene	ND	0.50	0.13
1,3-Dichloropropane	ND	0.50	0.08
1,4-Dichlorobenzene	ND	0.50	0.18
2,2-Dichloropropane	ND	0.50	0.23
2-Chlorotoluene	ND	0.50	0.12
4-Chlorotoluene	ND	0.50	0.11
4-Isopropyltoluene	ND	0.50	0.12
Benzene	ND	0.50	0.21
Bromobenzene	ND	0.50	0.12
Bromochloromethane	ND	0.50	0.10
Bromodichloromethane	ND	0.50	0.32
Bromoform	ND	0.50	0.14
Bromomethane	ND	0.50	0.22
Carbon disulfide	ND	1.0	0.21
Carbon tetrachloride	ND	0.50	0.31
Chlorobenzene	ND	0.50	0.16
Chloroethane	ND	0.50	0.29
Chloroform	ND	0.50	0.16
Chloromethane	ND	0.50	0.19
cis-1,2-Dichloroethene	ND	0.50	0.39
cis-1,3-Dichloropropene	ND	0.50	0.08
Di-isopropyl ether	ND	0.50	0.14
Dibromochloromethane	ND	0.50	0.11
Dibromomethane	ND	0.50	0.09



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8C0854 - MSVOA_W (continued)

Blank (B8C0854-BLK1) - Continued

Prepared: 3/29/2018 Analyzed: 3/29/2018

Dichlorodifluoromethane	ND	0.50	0.31
Ethyl Acetate	ND	10	1.1
Ethyl Ether	ND	10	1.4
Ethyl tert-butyl ether	ND	0.50	0.08
Ethylbenzene	ND	0.50	0.08
Freon-113	ND	0.50	0.34
Hexachlorobutadiene	ND	0.50	0.22
Isopropylbenzene	ND	0.50	0.10
m,p-Xylene	ND	1.0	0.18
Methylene chloride	ND	1.0	0.26
MTBE	ND	0.50	0.09
n-Butylbenzene	ND	0.50	0.15
n-Propylbenzene	ND	0.50	0.14
Naphthalene	ND	0.50	0.09
o-Xylene	ND	0.50	0.04
sec-Butylbenzene	ND	0.50	0.15
Styrene	ND	0.50	0.05
tert-Amyl methyl ether	ND	0.50	0.10
tert-Butanol	ND	10	3.0
tert-Butylbenzene	ND	0.50	0.11
Tetrachloroethene	ND	0.50	0.18
Toluene	ND	0.50	0.14
trans-1,2-Dichloroethene	ND	0.50	0.15
trans-1,3-Dichloropropene	ND	0.50	0.09
Trichloroethene	ND	0.50	0.15
Trichlorofluoromethane	ND	0.50	0.33
Vinyl acetate	ND	10	1.9
Vinyl chloride	ND	0.50	0.25

Surrogate: 1,2-Dichloroethane-d4	27.17		25.0000	109	74 - 132
Surrogate: 4-Bromofluorobenzene	25.33		25.0000	101	82 - 123
Surrogate: Dibromofluoromethane	25.50		25.0000	102	76 - 135
Surrogate: Toluene-d8	26.67		25.0000	107	85 - 125

LCS (B8C0854-BS1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

1,1,1,2-Tetrachloroethane	21.9800	0.50	0.13	20.0000	110	67 - 140
1,1,1-Trichloroethane	19.3900	0.50	0.38	20.0000	97.0	74 - 136
1,1,2,2-Tetrachloroethane	18.4800	0.50	0.20	20.0000	92.4	73 - 116
1,1,2-Trichloroethane	20.4100	0.50	0.19	20.0000	102	78 - 116
1,1-Dichloroethane	19.3500	0.50	0.20	20.0000	96.8	64 - 134
1,1-Dichloroethene	19.0200	0.50	0.28	20.0000	95.1	72 - 123
1,1-Dichloropropene	21.2600	0.50	0.36	20.0000	106	79 - 137



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8C0854 - MSVOA_W (continued)

LCS (B8C0854-BS1) - Continued

Prepared: 3/29/2018 Analyzed: 3/29/2018

1,2,3-Trichloropropane	18.6200	0.50	0.16	20.0000		93.1	81 - 121		
1,2,3-Trichlorobenzene	21.8600	0.50	0.06	20.0000		109	71 - 114		
1,2,4-Trichlorobenzene	22.1000	0.50	0.07	20.0000		110	80 - 119		
1,2,4-Trimethylbenzene	23.6700	0.50	0.09	20.0000		118	78 - 142		
1,2-Dibromo-3-chloropropane	16.2700	0.50	0.20	20.0000		81.4	47 - 130		
1,2-Dibromoethane	21.5400	0.50	0.13	20.0000		108	79 - 116		
1,2-Dichlorobenzene	21.1300	0.50	0.12	20.0000		106	82 - 121		
1,2-Dichloroethane	19.6300	0.50	0.39	20.0000		98.2	71 - 126		
1,2-Dichloropropane	21.0500	0.50	0.47	20.0000		105	76 - 119		
1,3,5-Trimethylbenzene	24.1000	0.50	0.08	20.0000		120	78 - 144		
1,3-Dichlorobenzene	21.9300	0.50	0.13	20.0000		110	83 - 125		
1,3-Dichloropropane	19.8000	0.50	0.08	20.0000		99.0	78 - 117		
1,4-Dichlorobenzene	20.8700	0.50	0.18	20.0000		104	82 - 118		
2,2-Dichloropropane	18.8700	0.50	0.23	20.0000		94.4	67 - 144		
2-Chlorotoluene	22.6200	0.50	0.12	20.0000		113	73 - 143		
4-Chlorotoluene	23.3200	0.50	0.11	20.0000		117	72 - 143		
4-Isopropyltoluene	22.5600	0.50	0.12	20.0000		113	77 - 149		
Benzene	44.1600	0.50	0.21	40.0000		110	77 - 139		
Bromobenzene	21.6600	0.50	0.12	20.0000		108	83 - 121		
Bromochloromethane	20.1600	0.50	0.10	20.0000		101	73 - 121		
Bromodichloromethane	21.1700	0.50	0.32	20.0000		106	73 - 125		
Bromoform	17.7300	0.50	0.14	20.0000		88.6	73 - 125		
Bromomethane	19.7800	0.50	0.22	20.0000		98.9	48 - 144		
Carbon disulfide	21.4700	1.0	0.21	20.0000		107	73 - 132		
Carbon tetrachloride	20.4600	0.50	0.31	20.0000		102	75 - 151		
Chlorobenzene	21.3800	0.50	0.16	20.0000		107	82 - 123		
Chloroethane	23.5600	0.50	0.29	20.0000		118	55 - 170		
Chloroform	18.7700	0.50	0.16	20.0000		93.8	74 - 125		
Chloromethane	19.3400	0.50	0.19	20.0000		96.7	34 - 146		
cis-1,2-Dichloroethene	19.1100	0.50	0.39	20.0000		95.6	69 - 124		
cis-1,3-Dichloropropene	19.9000	0.50	0.08	20.0000		99.5	71 - 123		
Di-isopropyl ether	18.6200	0.50	0.14	20.0000		93.1	54 - 147		
Dibromochloromethane	22.4200	0.50	0.11	20.0000		112	57 - 140		
Dibromomethane	19.3700	0.50	0.09	20.0000		96.8	78 - 115		
Dichlorodifluoromethane	18.2700	0.50	0.31	20.0000		91.4	67 - 136		
Ethyl Acetate	176.900	10	1.1	200.000		88.4	49 - 121		
Ethyl Ether	190.560	10	1.4	200.000		95.3	62 - 120		
Ethyl tert-butyl ether	19.1400	0.50	0.08	20.0000		95.7	62 - 123		
Ethylbenzene	45.0400	0.50	0.08	40.0000		113	80 - 142		
Freon-113	19.3700	0.50	0.34	20.0000		96.8	77 - 147		
Hexachlorobutadiene	22.4200	0.50	0.22	20.0000		112	83 - 135		
Isopropylbenzene	24.2100	0.50	0.10	20.0000		121	75 - 147		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8C0854 - MSVOA_W (continued)

LCS (B8C0854-BS1) - Continued

Prepared: 3/29/2018 Analyzed: 3/29/2018

m,p-Xylene	47.9700	1.0	0.18	40.0000		120	74 - 148		
Methylene chloride	20.9500	1.0	0.26	20.0000		105	67 - 135		
MTBE	17.9400	0.50	0.09	20.0000		89.7	55 - 128		
n-Butylbenzene	24.3700	0.50	0.15	20.0000		122	76 - 153		
n-Propylbenzene	23.6100	0.50	0.14	20.0000		118	72 - 155		
Naphthalene	19.6900	0.50	0.09	20.0000		98.4	69 - 113		
o-Xylene	49.5700	0.50	0.04	40.0000		124	71 - 153		
sec-Butylbenzene	24.2900	0.50	0.15	20.0000		121	74 - 154		
Styrene	22.5500	0.50	0.05	20.0000		113	75 - 143		
tert-Amyl methyl ether	19.3100	0.50	0.10	20.0000		96.6	61 - 123		
tert-Butanol	90.3500	10	3.0	100.000		90.4	40 - 112		
tert-Butylbenzene	24.2900	0.50	0.11	20.0000		121	77 - 144		
Tetrachloroethene	22.0000	0.50	0.18	20.0000		110	82 - 136		
Toluene	45.2100	0.50	0.14	40.0000		113	75 - 142		
trans-1,2-Dichloroethene	18.9600	0.50	0.15	20.0000		94.8	63 - 135		
trans-1,3-Dichloropropene	20.7600	0.50	0.09	20.0000		104	65 - 131		
Trichloroethene	23.3200	0.50	0.15	20.0000		117	82 - 124		
Trichlorofluoromethane	20.2400	0.50	0.33	20.0000		101	70 - 159		
Vinyl acetate	197.400	10	1.9	200.000		98.7	48 - 133		
Vinyl chloride	19.5400	0.50	0.25	20.0000		97.7	67 - 131		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>23.20</i>			<i>25.0000</i>		<i>92.8</i>	<i>74 - 132</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>27.10</i>			<i>25.0000</i>		<i>108</i>	<i>82 - 123</i>		
<i>Surrogate: Dibromofluoromethane</i>	<i>23.39</i>			<i>25.0000</i>		<i>93.6</i>	<i>76 - 135</i>		
<i>Surrogate: Toluene-d8</i>	<i>27.59</i>			<i>25.0000</i>		<i>110</i>	<i>85 - 125</i>		

LCS Dup (B8C0854-BSD1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

1,1,1,2-Tetrachloroethane	21.4300	0.50	0.13	20.0000		107	67 - 140	2.53	20
1,1,1-Trichloroethane	18.6300	0.50	0.38	20.0000		93.2	74 - 136	4.00	20
1,1,2,2-Tetrachloroethane	18.9300	0.50	0.20	20.0000		94.6	73 - 116	2.41	20
1,1,2-Trichloroethane	20.4700	0.50	0.19	20.0000		102	78 - 116	0.294	20
1,1-Dichloroethane	18.8800	0.50	0.20	20.0000		94.4	64 - 134	2.46	20
1,1-Dichloroethene	19.0600	0.50	0.28	20.0000		95.3	72 - 123	0.210	20
1,1-Dichloropropene	19.9500	0.50	0.36	20.0000		99.8	79 - 137	6.36	20
1,2,3-Trichloropropane	18.4900	0.50	0.16	20.0000		92.4	81 - 121	0.701	20
1,2,3-Trichlorobenzene	21.5800	0.50	0.06	20.0000		108	71 - 114	1.29	20
1,2,4-Trichlorobenzene	21.5200	0.50	0.07	20.0000		108	80 - 119	2.66	20
1,2,4-Trimethylbenzene	22.7500	0.50	0.09	20.0000		114	78 - 142	3.96	20
1,2-Dibromo-3-chloropropane	16.3900	0.50	0.20	20.0000		82.0	47 - 130	0.735	20
1,2-Dibromoethane	20.8100	0.50	0.13	20.0000		104	79 - 116	3.45	20
1,2-Dichlorobenzene	20.7700	0.50	0.12	20.0000		104	82 - 121	1.72	20
1,2-Dichloroethane	18.9200	0.50	0.39	20.0000		94.6	71 - 126	3.68	20



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 04/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8C0854 - MSVOA_W (continued)

LCS Dup (B8C0854-BSD1) - Continued

Prepared: 3/29/2018 Analyzed: 3/29/2018

1,2-Dichloropropane	20.0500	0.50	0.47	20.0000		100	76 - 119	4.87	20	
1,3,5-Trimethylbenzene	23.0900	0.50	0.08	20.0000		115	78 - 144	4.28	20	
1,3-Dichlorobenzene	21.3900	0.50	0.13	20.0000		107	83 - 125	2.49	20	
1,3-Dichloropropane	20.2500	0.50	0.08	20.0000		101	78 - 117	2.25	20	
1,4-Dichlorobenzene	20.2100	0.50	0.18	20.0000		101	82 - 118	3.21	20	
2,2-Dichloropropane	18.0200	0.50	0.23	20.0000		90.1	67 - 144	4.61	20	
2-Chlorotoluene	21.9900	0.50	0.12	20.0000		110	73 - 143	2.82	20	
4-Chlorotoluene	22.2600	0.50	0.11	20.0000		111	72 - 143	4.65	20	
4-Isopropyltoluene	21.6300	0.50	0.12	20.0000		108	77 - 149	4.21	20	
Benzene	41.4600	0.50	0.21	40.0000		104	77 - 139	6.31	20	
Bromobenzene	21.1100	0.50	0.12	20.0000		106	83 - 121	2.57	20	
Bromochloromethane	19.8900	0.50	0.10	20.0000		99.4	73 - 121	1.35	20	
Bromodichloromethane	20.4300	0.50	0.32	20.0000		102	73 - 125	3.56	20	
Bromoform	17.7300	0.50	0.14	20.0000		88.6	73 - 125	0.00	20	
Bromomethane	18.6500	0.50	0.22	20.0000		93.2	48 - 144	5.88	20	
Carbon disulfide	20.7400	1.0	0.21	20.0000		104	73 - 132	3.46	20	
Carbon tetrachloride	20.0600	0.50	0.31	20.0000		100	75 - 151	1.97	20	
Chlorobenzene	20.4800	0.50	0.16	20.0000		102	82 - 123	4.30	20	
Chloroethane	21.4200	0.50	0.29	20.0000		107	55 - 170	9.52	20	
Chloroform	18.0300	0.50	0.16	20.0000		90.2	74 - 125	4.02	20	
Chloromethane	16.9600	0.50	0.19	20.0000		84.8	34 - 146	13.1	20	
cis-1,2-Dichloroethene	18.6100	0.50	0.39	20.0000		93.0	69 - 124	2.65	20	
cis-1,3-Dichloropropene	19.3600	0.50	0.08	20.0000		96.8	71 - 123	2.75	20	
Di-isopropyl ether	18.5400	0.50	0.14	20.0000		92.7	54 - 147	0.431	20	
Dibromochloromethane	22.3000	0.50	0.11	20.0000		112	57 - 140	0.537	20	
Dibromomethane	18.8100	0.50	0.09	20.0000		94.0	78 - 115	2.93	20	
Dichlorodifluoromethane	16.9200	0.50	0.31	20.0000		84.6	67 - 136	7.67	20	
Ethyl Acetate	180.920	10	1.1	200.000		90.5	49 - 121	2.25	20	
Ethyl Ether	188.400	10	1.4	200.000		94.2	62 - 120	1.14	20	
Ethyl tert-butyl ether	18.7200	0.50	0.08	20.0000		93.6	62 - 123	2.22	20	
Ethylbenzene	42.9100	0.50	0.08	40.0000		107	80 - 142	4.84	20	
Freon-113	19.1300	0.50	0.34	20.0000		95.6	77 - 147	1.25	20	
Hexachlorobutadiene	21.1200	0.50	0.22	20.0000		106	83 - 135	5.97	20	
Isopropylbenzene	23.4200	0.50	0.10	20.0000		117	75 - 147	3.32	20	
m,p-Xylene	45.1600	1.0	0.18	40.0000		113	74 - 148	6.03	20	
Methylene chloride	19.8200	1.0	0.26	20.0000		99.1	67 - 135	5.54	20	
MTBE	18.0400	0.50	0.09	20.0000		90.2	55 - 128	0.556	20	
n-Butylbenzene	23.4300	0.50	0.15	20.0000		117	76 - 153	3.93	20	
n-Propylbenzene	22.4600	0.50	0.14	20.0000		112	72 - 155	4.99	20	
Naphthalene	19.4700	0.50	0.09	20.0000		97.4	69 - 113	1.12	20	
o-Xylene	47.0700	0.50	0.04	40.0000		118	71 - 153	5.17	20	
sec-Butylbenzene	23.3300	0.50	0.15	20.0000		117	74 - 154	4.03	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8C0854 - MSVOA_W (continued)

LCS Dup (B8C0854-BSD1) - Continued

Prepared: 3/29/2018 Analyzed: 3/29/2018

Styrene	21.3100	0.50	0.05	20.0000		107	75 - 143	5.65	20	
tert-Amyl methyl ether	19.3500	0.50	0.10	20.0000		96.8	61 - 123	0.207	20	
tert-Butanol	95.1500	10	3.0	100.000		95.2	40 - 112	5.18	20	
tert-Butylbenzene	23.3800	0.50	0.11	20.0000		117	77 - 144	3.82	20	
Tetrachloroethene	21.1600	0.50	0.18	20.0000		106	82 - 136	3.89	20	
Toluene	41.9100	0.50	0.14	40.0000		105	75 - 142	7.58	20	
trans-1,2-Dichloroethene	19.1700	0.50	0.15	20.0000		95.8	63 - 135	1.10	20	
trans-1,3-Dichloropropene	20.3000	0.50	0.09	20.0000		102	65 - 131	2.24	20	
Trichloroethene	22.5400	0.50	0.15	20.0000		113	82 - 124	3.40	20	
Trichlorofluoromethane	19.3200	0.50	0.33	20.0000		96.6	70 - 159	4.65	20	
Vinyl acetate	196.920	10	1.9	200.000		98.5	48 - 133	0.243	20	
Vinyl chloride	18.1600	0.50	0.25	20.0000		90.8	67 - 131	7.32	20	
Surrogate: 1,2-Dichloroethane-d4	24.23			25.0000		96.9	74 - 132			
Surrogate: 4-Bromofluorobenzene	26.54			25.0000		106	82 - 123			
Surrogate: Dibromofluoromethane	23.26			25.0000		93.0	76 - 135			
Surrogate: Toluene-d8	26.22			25.0000		105	85 - 125			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8C0844 - MSVOA_S

Blank (B8C0844-BLK1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

1,1,1,2-Tetrachloroethane	ND	5.0	0.96
1,1,1-Trichloroethane	ND	5.0	1.1
1,1,2,2-Tetrachloroethane	ND	5.0	0.62
1,1,2-Trichloroethane	ND	5.0	1.6
1,1-Dichloroethane	ND	5.0	0.81
1,1-Dichloroethene	ND	5.0	2.6
1,1-Dichloropropene	ND	5.0	2.3
1,2,3-Trichloropropane	ND	5.0	0.54
1,2,3-Trichlorobenzene	ND	5.0	1.2
1,2,4-Trichlorobenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.5
1,2-Dibromo-3-chloropropane	ND	10	1.6
1,2-Dibromoethane	ND	5.0	3.2
1,2-Dichlorobenzene	ND	5.0	1.1
1,2-Dichloroethane	ND	5.0	1.2
1,2-Dichloropropane	ND	5.0	1.8
1,3,5-Trimethylbenzene	ND	5.0	1.7
1,3-Dichlorobenzene	ND	5.0	1.3
1,3-Dichloropropane	ND	5.0	1.1
1,4-Dichlorobenzene	ND	5.0	1.2
2,2-Dichloropropane	ND	5.0	1.2
2-Chlorotoluene	ND	5.0	1.6
4-Chlorotoluene	ND	5.0	1.5
4-Isopropyltoluene	ND	5.0	2.3
Benzene	ND	5.0	0.64
Bromobenzene	ND	5.0	1.1
Bromochloromethane	ND	5.0	0.64
Bromodichloromethane	ND	5.0	1.2
Bromoform	ND	5.0	0.80
Bromomethane	ND	5.0	2.5
Carbon disulfide	ND	5.0	3.5
Carbon tetrachloride	ND	5.0	1.2
Chlorobenzene	ND	5.0	1.0
Chloroethane	ND	5.0	1.1
Chloroform	ND	5.0	0.82
Chloromethane	ND	5.0	1.4
cis-1,2-Dichloroethene	ND	5.0	0.67
cis-1,3-Dichloropropene	ND	5.0	1.9
Di-isopropyl ether	ND	5.0	0.55
Dibromochloromethane	ND	5.0	1.0
Dibromomethane	ND	5.0	1.6



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8C0844 - MSVOA_S (continued)

Blank (B8C0844-BLK1) - Continued

Prepared: 3/29/2018 Analyzed: 3/29/2018

Dichlorodifluoromethane	ND	5.0	2.2
Ethyl Acetate	ND	50	8.1
Ethyl Ether	ND	50	6.1
Ethyl tert-butyl ether	ND	5.0	0.67
Ethylbenzene	ND	5.0	0.91
Freon-113	ND	5.0	2.8
Hexachlorobutadiene	ND	5.0	2.5
Isopropylbenzene	ND	5.0	1.8
m,p-Xylene	ND	10	1.5
Methylene chloride	ND	5.0	2.3
MTBE	ND	5.0	0.63
n-Butylbenzene	ND	5.0	2.4
n-Propylbenzene	ND	5.0	2.2
Naphthalene	ND	5.0	0.97
o-Xylene	ND	5.0	0.87
sec-Butylbenzene	ND	5.0	2.3
Styrene	ND	5.0	1.5
tert-Amyl methyl ether	ND	5.0	0.59
tert-Butanol	ND	100	19
tert-Butylbenzene	ND	5.0	2.0
Tetrachloroethene	ND	5.0	1.6
Toluene	ND	5.0	0.94
trans-1,2-Dichloroethene	ND	5.0	0.59
trans-1,3-Dichloropropene	ND	5.0	2.1
Trichloroethene	ND	5.0	3.1
Trichlorofluoromethane	ND	5.0	1.4
Vinyl acetate	ND	50	9.8
Vinyl chloride	ND	5.0	1.7

Surrogate: 1,2-Dichloroethane-d4	45.62		50.0000	91.2	32 - 140
Surrogate: 4-Bromofluorobenzene	39.37		50.0000	78.7	68 - 131
Surrogate: Dibromofluoromethane	52.29		50.0000	105	49 - 134
Surrogate: Toluene-d8	47.66		50.0000	95.3	75 - 132

LCS (B8C0844-BS1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

1,1,1,2-Tetrachloroethane	56.9900	5.0	0.96	50.0000	114	80 - 117
1,1,1-Trichloroethane	47.4100	5.0	1.1	50.0000	94.8	70 - 122
1,1,2,2-Tetrachloroethane	42.8600	5.0	0.62	50.0000	85.7	69 - 115
1,1,2-Trichloroethane	44.7400	5.0	1.6	50.0000	89.5	74 - 120
1,1-Dichloroethane	39.5600	5.0	0.81	50.0000	79.1	72 - 118
1,1-Dichloroethene	37.9600	5.0	2.6	50.0000	75.9	61 - 124
1,1-Dichloropropene	50.2300	5.0	2.3	50.0000	100	74 - 128



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8C0844 - MSVOA_S (continued)

LCS (B8C0844-BS1) - Continued

Prepared: 3/29/2018 Analyzed: 3/29/2018

1,2,3-Trichloropropane	44.6300	5.0	0.54	50.0000		89.3	67 - 116		
1,2,3-Trichlorobenzene	54.1200	5.0	1.2	50.0000		108	86 - 127		
1,2,4-Trichlorobenzene	52.0800	5.0	1.1	50.0000		104	88 - 137		
1,2,4-Trimethylbenzene	46.1300	5.0	1.5	50.0000		92.3	78 - 125		
1,2-Dibromo-3-chloropropane	40.2400	10	1.6	50.0000		80.5	70 - 134		
1,2-Dibromoethane	50.3600	5.0	3.2	50.0000		101	73 - 127		
1,2-Dichlorobenzene	50.6400	5.0	1.1	50.0000		101	85 - 116		
1,2-Dichloroethane	51.7100	5.0	1.2	50.0000		103	65 - 120		
1,2-Dichloropropane	43.9900	5.0	1.8	50.0000		88.0	81 - 114		
1,3,5-Trimethylbenzene	46.6300	5.0	1.7	50.0000		93.3	76 - 125		
1,3-Dichlorobenzene	51.4900	5.0	1.3	50.0000		103	83 - 117		
1,3-Dichloropropane	44.7200	5.0	1.1	50.0000		89.4	79 - 119		
1,4-Dichlorobenzene	50.3600	5.0	1.2	50.0000		101	84 - 115		
2,2-Dichloropropane	47.9500	5.0	1.2	50.0000		95.9	72 - 121		
2-Chlorotoluene	44.4600	5.0	1.6	50.0000		88.9	76 - 120		
4-Chlorotoluene	44.2600	5.0	1.5	50.0000		88.5	77 - 122		
4-Isopropyltoluene	44.0500	5.0	2.3	50.0000		88.1	77 - 131		
Benzene	86.6100	5.0	0.64	100.000		86.6	78 - 115		
Bromobenzene	51.4700	5.0	1.1	50.0000		103	79 - 113		
Bromochloromethane	47.0600	5.0	0.64	50.0000		94.1	66 - 123		
Bromodichloromethane	50.1200	5.0	1.2	50.0000		100	79 - 112		
Bromoform	57.4000	5.0	0.80	50.0000		115	67 - 125		
Bromomethane	45.9100	5.0	2.5	50.0000		91.8	49 - 150		
Carbon disulfide	36.2200	5.0	3.5	50.0000		72.4	61 - 146		
Carbon tetrachloride	60.1100	5.0	1.2	50.0000		120	65 - 133		
Chlorobenzene	49.9200	5.0	1.0	50.0000		99.8	82 - 113		
Chloroethane	37.6700	5.0	1.1	50.0000		75.3	46 - 146		
Chloroform	43.6200	5.0	0.82	50.0000		87.2	73 - 116		
Chloromethane	35.0200	5.0	1.4	50.0000		70.0	46 - 158		
cis-1,2-Dichloroethene	41.2800	5.0	0.67	50.0000		82.6	72 - 121		
cis-1,3-Dichloropropene	44.5200	5.0	1.9	50.0000		89.0	79 - 123		
Di-isopropyl ether	35.9800	5.0	0.55	50.0000		72.0	67 - 125		
Dibromochloromethane	53.1500	5.0	1.0	50.0000		106	79 - 116		
Dibromomethane	48.5900	5.0	1.6	50.0000		97.2	72 - 117		
Dichlorodifluoromethane	51.6100	5.0	2.2	50.0000		103	38 - 168		
Ethyl Acetate	340.600	50	8.1	500.000		68.1	55 - 144		
Ethyl Ether	464.820	50	6.1	500.000		93.0	52 - 133		
Ethyl tert-butyl ether	37.8700	5.0	0.67	50.0000		75.7	68 - 126		
Ethylbenzene	89.9200	5.0	0.91	100.000		89.9	79 - 116		
Freon-113	44.1600	5.0	2.8	50.0000		88.3	66 - 134		
Hexachlorobutadiene	48.2000	5.0	2.5	50.0000		96.4	84 - 133		
Isopropylbenzene	44.7500	5.0	1.8	50.0000		89.5	67 - 134		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8C0844 - MSVOA_S (continued)

LCS (B8C0844-BS1) - Continued

Prepared: 3/29/2018 Analyzed: 3/29/2018

m,p-Xylene	91.6800	10	1.5	100.000		91.7	78 - 126		
Methylene chloride	38.4200	5.0	2.3	50.0000		76.8	31 - 148		
MTBE	38.4500	5.0	0.63	50.0000		76.9	59 - 131		
n-Butylbenzene	41.4200	5.0	2.4	50.0000		82.8	75 - 141		
n-Propylbenzene	44.8400	5.0	2.2	50.0000		89.7	73 - 127		
Naphthalene	46.7300	5.0	0.97	50.0000		93.5	78 - 129		
o-Xylene	90.2200	5.0	0.87	100.000		90.2	81 - 113		
sec-Butylbenzene	46.4100	5.0	2.3	50.0000		92.8	73 - 129		
Styrene	45.9600	5.0	1.5	50.0000		91.9	88 - 118		
tert-Amyl methyl ether	35.6200	5.0	0.59	50.0000		71.2	62 - 122		
tert-Butanol	175.340	100	19	250.000		70.1	36 - 142		
tert-Butylbenzene	44.5700	5.0	2.0	50.0000		89.1	74 - 126		
Tetrachloroethene	54.9800	5.0	1.6	50.0000		110	74 - 127		
Toluene	95.4600	5.0	0.94	100.000		95.5	79 - 119		
trans-1,2-Dichloroethene	39.7400	5.0	0.59	50.0000		79.5	61 - 128		
trans-1,3-Dichloropropene	50.4200	5.0	2.1	50.0000		101	75 - 116		
Trichloroethene	51.7100	5.0	3.1	50.0000		103	76 - 123		
Trichlorofluoromethane	55.4000	5.0	1.4	50.0000		111	58 - 134		
Vinyl acetate	377.800	50	9.8	500.000		75.6	63 - 143		
Vinyl chloride	33.1100	5.0	1.7	50.0000		66.2	51 - 145		
Surrogate: 1,2-Dichloroethane-d4	42.01			50.0000		84.0	32 - 140		
Surrogate: 4-Bromofluorobenzene	43.49			50.0000		87.0	68 - 131		
Surrogate: Dibromofluoromethane	45.54			50.0000		91.1	49 - 134		
Surrogate: Toluene-d8	46.06			50.0000		92.1	75 - 132		

LCS Dup (B8C0844-BSD1)

Prepared: 3/29/2018 Analyzed: 3/29/2018

1,1,1,2-Tetrachloroethane	59.4700	5.0	0.96	50.0000		119	80 - 117	4.26	20	R
1,1,1-Trichloroethane	47.9000	5.0	1.1	50.0000		95.8	70 - 122	1.03	20	
1,1,2,2-Tetrachloroethane	47.7500	5.0	0.62	50.0000		95.5	69 - 115	10.8	20	
1,1,2-Trichloroethane	48.0700	5.0	1.6	50.0000		96.1	74 - 120	7.18	20	
1,1-Dichloroethane	41.0700	5.0	0.81	50.0000		82.1	72 - 118	3.75	20	
1,1-Dichloroethene	37.7700	5.0	2.6	50.0000		75.5	61 - 124	0.502	20	
1,1-Dichloropropene	51.9200	5.0	2.3	50.0000		104	74 - 128	3.31	20	
1,2,3-Trichloropropane	49.1100	5.0	0.54	50.0000		98.2	67 - 116	9.56	20	
1,2,3-Trichlorobenzene	59.3300	5.0	1.2	50.0000		119	86 - 127	9.18	20	
1,2,4-Trichlorobenzene	56.5400	5.0	1.1	50.0000		113	88 - 137	8.21	20	
1,2,4-Trimethylbenzene	49.2000	5.0	1.5	50.0000		98.4	78 - 125	6.44	20	
1,2-Dibromo-3-chloropropane	43.3700	10	1.6	50.0000		86.7	70 - 134	7.49	20	
1,2-Dibromoethane	52.4000	5.0	3.2	50.0000		105	73 - 127	3.97	20	
1,2-Dichlorobenzene	54.4200	5.0	1.1	50.0000		109	85 - 116	7.20	20	
1,2-Dichloroethane	55.1500	5.0	1.2	50.0000		110	65 - 120	6.44	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8C0844 - MSVOA_S (continued)

LCS Dup (B8C0844-BSD1) - Continued

Prepared: 3/29/2018 Analyzed: 3/29/2018

1,2-Dichloropropane	46.2900	5.0	1.8	50.0000		92.6	81 - 114	5.10	20
1,3,5-Trimethylbenzene	49.0500	5.0	1.7	50.0000		98.1	76 - 125	5.06	20
1,3-Dichlorobenzene	54.5500	5.0	1.3	50.0000		109	83 - 117	5.77	20
1,3-Dichloropropane	48.3100	5.0	1.1	50.0000		96.6	79 - 119	7.72	20
1,4-Dichlorobenzene	53.7400	5.0	1.2	50.0000		107	84 - 115	6.49	20
2,2-Dichloropropane	48.7500	5.0	1.2	50.0000		97.5	72 - 121	1.65	20
2-Chlorotoluene	47.0200	5.0	1.6	50.0000		94.0	76 - 120	5.60	20
4-Chlorotoluene	46.7200	5.0	1.5	50.0000		93.4	77 - 122	5.41	20
4-Isopropyltoluene	46.8800	5.0	2.3	50.0000		93.8	77 - 131	6.22	20
Benzene	89.1900	5.0	0.64	100.000		89.2	78 - 115	2.94	20
Bromobenzene	55.4100	5.0	1.1	50.0000		111	79 - 113	7.37	20
Bromochloromethane	46.7000	5.0	0.64	50.0000		93.4	66 - 123	0.768	20
Bromodichloromethane	52.7400	5.0	1.2	50.0000		105	79 - 112	5.09	20
Bromoform	61.4200	5.0	0.80	50.0000		123	67 - 125	6.77	20
Bromomethane	46.4600	5.0	2.5	50.0000		92.9	49 - 150	1.19	20
Carbon disulfide	36.3000	5.0	3.5	50.0000		72.6	61 - 146	0.221	20
Carbon tetrachloride	62.3100	5.0	1.2	50.0000		125	65 - 133	3.59	20
Chlorobenzene	51.9100	5.0	1.0	50.0000		104	82 - 113	3.91	20
Chloroethane	38.5900	5.0	1.1	50.0000		77.2	46 - 146	2.41	20
Chloroform	44.5500	5.0	0.82	50.0000		89.1	73 - 116	2.11	20
Chloromethane	37.9100	5.0	1.4	50.0000		75.8	46 - 158	7.93	20
cis-1,2-Dichloroethene	42.1500	5.0	0.67	50.0000		84.3	72 - 121	2.09	20
cis-1,3-Dichloropropene	47.2700	5.0	1.9	50.0000		94.5	79 - 123	5.99	20
Di-isopropyl ether	37.4100	5.0	0.55	50.0000		74.8	67 - 125	3.90	20
Dibromochloromethane	56.5000	5.0	1.0	50.0000		113	79 - 116	6.11	20
Dibromomethane	52.1800	5.0	1.6	50.0000		104	72 - 117	7.13	20
Dichlorodifluoromethane	52.2500	5.0	2.2	50.0000		104	38 - 168	1.23	20
Ethyl Acetate	353.190	50	8.1	500.000		70.6	55 - 144	3.63	20
Ethyl Ether	487.960	50	6.1	500.000		97.6	52 - 133	4.86	20
Ethyl tert-butyl ether	40.4400	5.0	0.67	50.0000		80.9	68 - 126	6.56	20
Ethylbenzene	93.8200	5.0	0.91	100.000		93.8	79 - 116	4.25	20
Freon-113	44.5900	5.0	2.8	50.0000		89.2	66 - 134	0.969	20
Hexachlorobutadiene	52.6200	5.0	2.5	50.0000		105	84 - 133	8.77	20
Isopropylbenzene	47.5600	5.0	1.8	50.0000		95.1	67 - 134	6.09	20
m,p-Xylene	94.9900	10	1.5	100.000		95.0	78 - 126	3.55	20
Methylene chloride	39.1700	5.0	2.3	50.0000		78.3	31 - 148	1.93	20
MTBE	40.3400	5.0	0.63	50.0000		80.7	59 - 131	4.80	20
n-Butylbenzene	43.9800	5.0	2.4	50.0000		88.0	75 - 141	6.00	20
n-Propylbenzene	48.4400	5.0	2.2	50.0000		96.9	73 - 127	7.72	20
Naphthalene	51.4100	5.0	0.97	50.0000		103	78 - 129	9.54	20
o-Xylene	94.5500	5.0	0.87	100.000		94.6	81 - 113	4.69	20
sec-Butylbenzene	50.4300	5.0	2.3	50.0000		101	73 - 129	8.30	20



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8C0844 - MSVOA_S (continued)

LCS Dup (B8C0844-BSD1) - Continued

Prepared: 3/29/2018 Analyzed: 3/29/2018

Styrene	48.1100	5.0	1.5	50.0000		96.2	88 - 118	4.57	20	
tert-Amyl methyl ether	37.6400	5.0	0.59	50.0000		75.3	62 - 122	5.51	20	
tert-Butanol	150.250	100	19	250.000		60.1	36 - 142	15.4	20	
tert-Butylbenzene	47.6300	5.0	2.0	50.0000		95.3	74 - 126	6.64	20	
Tetrachloroethene	58.1000	5.0	1.6	50.0000		116	74 - 127	5.52	20	
Toluene	99.2800	5.0	0.94	100.000		99.3	79 - 119	3.92	20	
trans-1,2-Dichloroethene	40.1100	5.0	0.59	50.0000		80.2	61 - 128	0.927	20	
trans-1,3-Dichloropropene	52.5600	5.0	2.1	50.0000		105	75 - 116	4.16	20	
Trichloroethene	53.7900	5.0	3.1	50.0000		108	76 - 123	3.94	20	
Trichlorofluoromethane	56.3200	5.0	1.4	50.0000		113	58 - 134	1.65	20	
Vinyl acetate	392.670	50	9.8	500.000		78.5	63 - 143	3.86	20	
Vinyl chloride	33.9700	5.0	1.7	50.0000		67.9	51 - 145	2.56	20	
Surrogate: 1,2-Dichloroethane-d4	41.88			50.0000		83.8	32 - 140			
Surrogate: 4-Bromofluorobenzene	45.22			50.0000		90.4	68 - 131			
Surrogate: Dibromofluoromethane	45.69			50.0000		91.4	49 - 134			
Surrogate: Toluene-d8	46.73			50.0000		93.5	75 - 132			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Notes and Definitions

S5	Surrogate recovery was above laboratory acceptance limit. Sample reanalysis showed the same high recovery.
S4	Surrogate was diluted out.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D7	A lesser amount of sample was analyzed due to matrix.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Q. 2

Page 1 of 1Page 1 of 1

NOTES:

FAX: (949) 595-0459



April 10, 2018

Keith Thompson
Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610
Tel: (949) 470-3691
Fax: (949) 887-8247

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1801260
Client Reference : 92nd St. ES

Enclosed are the results for sample(s) received on March 28, 2018 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a small "ER" monogram to the left.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 04/10/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PB-14-6"	1801260-01	Soil	3/28/18 8:15	3/28/18 16:44
PB-14-18"	1801260-02	Soil	3/28/18 8:20	3/28/18 16:44
PB-14-30"	1801260-03	Soil	3/28/18 8:25	3/28/18 16:44
PB-20-6"	1801260-04	Soil	3/28/18 8:30	3/28/18 16:44
PB-20-18"	1801260-05	Soil	3/28/18 8:35	3/28/18 16:44
PB-20-30"	1801260-06	Soil	3/28/18 8:38	3/28/18 16:44
PB-21-6"	1801260-07	Soil	3/28/18 8:42	3/28/18 16:44
PB-21-18"	1801260-08	Soil	3/28/18 8:46	3/28/18 16:44
PB-21-30"	1801260-09	Soil	3/28/18 8:50	3/28/18 16:44
PB-22-6"	1801260-10	Soil	3/28/18 8:54	3/28/18 16:44
PB-22-18"	1801260-11	Soil	3/28/18 8:57	3/28/18 16:44
PB-22-30"	1801260-12	Soil	3/28/18 9:00	3/28/18 16:44
PB-23-6"	1801260-13	Soil	3/28/18 9:10	3/28/18 16:44
PB-23-18"	1801260-14	Soil	3/28/18 9:15	3/28/18 16:44
PB-23-30"	1801260-15	Soil	3/28/18 9:20	3/28/18 16:44
PB-24-6"	1801260-16	Soil	3/28/18 9:30	3/28/18 16:44
PB-24-18"	1801260-17	Soil	3/28/18 9:35	3/28/18 16:44
PB-24-30"	1801260-18	Soil	3/28/18 9:40	3/28/18 16:44
PB-25-6"	1801260-19	Soil	3/28/18 9:50	3/28/18 16:44
PB-25-18"	1801260-20	Soil	3/28/18 9:55	3/28/18 16:44
PB-25-30"	1801260-21	Soil	3/28/18 10:00	3/28/18 16:44
PB-26-6"	1801260-22	Soil	3/28/18 10:10	3/28/18 16:44
PB-26-18"	1801260-23	Soil	3/28/18 10:20	3/28/18 16:44
PB-26-30"	1801260-24	Soil	3/28/18 10:25	3/28/18 16:44
PB-35-6"	1801260-25	Soil	3/28/18 10:30	3/28/18 16:44
PB-35-18"	1801260-26	Soil	3/28/18 10:40	3/28/18 16:44
PB-35-30"	1801260-27	Soil	3/28/18 10:45	3/28/18 16:44
PB-37-6"	1801260-28	Soil	3/28/18 10:55	3/28/18 16:44
PB-37-18"	1801260-29	Soil	3/28/18 11:00	3/28/18 16:44
PB-37-30"	1801260-30	Soil	3/28/18 11:05	3/28/18 16:44
PB-36-6"	1801260-31	Soil	3/28/18 11:15	3/28/18 16:44
PB-36-18"	1801260-32	Soil	3/28/18 11:20	3/28/18 16:44
PB-36-30"	1801260-33	Soil	3/28/18 11:25	3/28/18 16:44
PB-38-6"	1801260-34	Soil	3/28/18 11:35	3/28/18 16:44
PB-38-18"	1801260-35	Soil	3/28/18 11:40	3/28/18 16:44
PB-38-30"	1801260-36	Soil	3/28/18 11:45	3/28/18 16:44
PB-40-6"	1801260-37	Soil	3/28/18 11:55	3/28/18 16:44



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 04/10/2018

PB-40-18"	1801260-38	Soil	3/28/18 12:00	3/28/18 16:44
PB-40-30"	1801260-39	Soil	3/28/18 12:05	3/28/18 16:44
PB-34-6"	1801260-40	Soil	3/28/18 12:15	3/28/18 16:44
PB-34-18"	1801260-41	Soil	3/28/18 12:20	3/28/18 16:44
PB-34-30"	1801260-42	Soil	3/28/18 12:25	3/28/18 16:44
PB-33-6"	1801260-43	Soil	3/28/18 12:30	3/28/18 16:44
PB-33-18"	1801260-44	Soil	3/28/18 12:35	3/28/18 16:44
PB-33-30"	1801260-45	Soil	3/28/18 12:40	3/28/18 16:44
PB-39-6"	1801260-46	Soil	3/28/18 12:58	3/28/18 16:44
PB-39-18"	1801260-47	Soil	3/28/18 12:55	3/28/18 16:44
PB-39-30"	1801260-48	Soil	3/28/18 13:00	3/28/18 16:44
PB-43-6"	1801260-49	Soil	3/28/18 13:13	3/28/18 16:44
PB-43-18"	1801260-50	Soil	3/28/18 13:16	3/28/18 16:44
PB-43-30"	1801260-51	Soil	3/28/18 13:20	3/28/18 16:44
PB-41-6"	1801260-52	Soil	3/28/18 13:25	3/28/18 16:44
PB-41-18"	1801260-53	Soil	3/28/18 13:30	3/28/18 16:44
PB-41-30"	1801260-54	Soil	3/28/18 13:35	3/28/18 16:44
PB-42-6"	1801260-55	Soil	3/28/18 13:41	3/28/18 16:44
PB-42-18"	1801260-56	Soil	3/28/18 13:44	3/28/18 16:44
PB-42-30"	1801260-57	Soil	3/28/18 13:47	3/28/18 16:44
PB-44-6"	1801260-58	Soil	3/28/18 13:53	3/28/18 16:44
PB-44-18"	1801260-59	Soil	3/28/18 13:57	3/28/18 16:44
PB-44-30"	1801260-60	Soil	3/28/18 14:00	3/28/18 16:44
PB-45-6"	1801260-61	Soil	3/28/18 14:08	3/28/18 16:44
PB-45-18"	1801260-62	Soil	3/28/18 14:11	3/28/18 16:44
PB-45-30"	1801260-63	Soil	3/28/18 14:15	3/28/18 16:44
PB-46-6"	1801260-64	Soil	3/28/18 14:23	3/28/18 16:44
PB-46-18"	1801260-65	Soil	3/28/18 14:27	3/28/18 16:44
PB-46-30"	1801260-66	Soil	3/28/18 14:30	3/28/18 16:44
PB-47-6"	1801260-67	Soil	3/28/18 14:40	3/28/18 16:44
PB-47-18"	1801260-68	Soil	3/28/18 14:43	3/28/18 16:44
PB-47-30"	1801260-69	Soil	3/28/18 14:45	3/28/18 16:44



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-14-6"

Lab ID: 1801260-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.4	1.0	1	B8D0033	04/02/2018	04/03/18 11:13	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	1	B8D0046	04/02/2018	04/06/18 11:23	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:01	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:01	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:01	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:01	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:01	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 10:01	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:01	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:01	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 10:01	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 10:01	
Surrogate: Decachlorobiphenyl	62.9 %	15 - 100		B8D0045	04/02/2018	04/03/18 10:01	
Surrogate: Tetrachloro-m-xylene	52.6 %	16 - 100		B8D0045	04/02/2018	04/03/18 10:01	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-14-18"

Lab ID: 1801260-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.1	1.0	1	B8D0033	04/02/2018	04/03/18 11:16	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.3	1.0	1	B8D0046	04/02/2018	04/06/18 11:27	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:11	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:11	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:11	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:11	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:11	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 10:11	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:11	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:11	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 10:11	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 10:11	

Surrogate: Decachlorobiphenyl	52.8 %	15 - 100	B8D0045	04/02/2018	04/03/18 10:11
Surrogate: Tetrachloro-m-xylene	34.5 %	16 - 100	B8D0045	04/02/2018	04/03/18 10:11



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-14-30"

Lab ID: 1801260-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.6	1.0	1	B8D0033	04/02/2018	04/03/18 11:18	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	1	B8D0046	04/02/2018	04/06/18 11:28	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:22	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:22	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:22	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:22	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:22	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 10:22	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:22	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:22	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 10:22	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 10:22	
Surrogate: Decachlorobiphenyl	46.9 %	15 - 100		B8D0045	04/02/2018	04/03/18 10:22	
Surrogate: Tetrachloro-m-xylene	34.1 %	16 - 100		B8D0045	04/02/2018	04/03/18 10:22	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-20-6''

Lab ID: 1801260-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.6	1.0	1	B8D0033	04/02/2018	04/03/18 11:19	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	1	B8D0046	04/02/2018	04/06/18 11:28	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:32	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:32	
4,4'-DDT [2C]	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:32	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:32	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:32	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 10:32	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:32	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:32	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 10:32	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 10:32	
Surrogate: Decachlorobiphenyl	49.6 %	15 - 100		B8D0045	04/02/2018	04/03/18 10:32	
Surrogate: Tetrachloro-m-xylene	35.1 %	16 - 100		B8D0045	04/02/2018	04/03/18 10:32	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-20-18"

Lab ID: 1801260-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.6	1.0	1	B8D0033	04/02/2018	04/03/18 11:20	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	1	B8D0046	04/02/2018	04/06/18 11:29	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:43	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:43	
4,4'-DDT [2C]	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:43	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:43	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:43	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 10:43	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:43	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:43	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 10:43	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 10:43	

Surrogate: Decachlorobiphenyl	44.1 %	15 - 100	B8D0045	04/02/2018	04/03/18 10:43
Surrogate: Tetrachloro-m-xylene	36.4 %	16 - 100	B8D0045	04/02/2018	04/03/18 10:43



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-20-30"

Lab ID: 1801260-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.5	1.0	1	B8D0033	04/02/2018	04/03/18 11:21	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.5	1.0	1	B8D0046	04/02/2018	04/06/18 11:47	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:53	
4,4'-DDE [2C]	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:53	
4,4'-DDT [2C]	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:53	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:53	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:53	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Chlordane [2C]	ND	8.5	1	B8D0045	04/02/2018	04/03/18 10:53	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 10:53	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:53	
gamma-Chlordane [2C]	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 10:53	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 10:53	

Surrogate: Decachlorobiphenyl	20.5 %	15 - 100	B8D0045	04/02/2018	04/03/18 10:53
Surrogate: Tetrachloro-m-xylene	22.8 %	16 - 100	B8D0045	04/02/2018	04/03/18 10:53



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-21-6"

Lab ID: 1801260-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.2	1.0	1	B8D0033	04/02/2018	04/03/18 11:25	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	1	B8D0046	04/02/2018	04/06/18 11:48	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:45	
4,4'-DDE	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:45	
4,4'-DDT	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Aldrin	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:45	
alpha-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:45	
alpha-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:45	
beta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Chlordane	ND	8.5	1	B8D0184	04/05/2018	04/06/18 15:45	
delta-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Dieldrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Endosulfan I	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Endosulfan II	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Endosulfan sulfate	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Endrin	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Endrin aldehyde	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Endrin ketone	ND	2.0	1	B8D0184	04/05/2018	04/06/18 15:45	
gamma-BHC	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:45	
gamma-Chlordane	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Heptachlor	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Heptachlor epoxide	ND	1.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Methoxychlor	ND	5.0	1	B8D0184	04/05/2018	04/06/18 15:45	
Toxaphene	ND	50	1	B8D0184	04/05/2018	04/06/18 15:45	

Surrogate: Decachlorobiphenyl	31.1 %	15 - 100	B8D0184	04/05/2018	04/06/18 15:45
Surrogate: Tetrachloro-m-xylene	36.8 %	16 - 100	B8D0184	04/05/2018	04/06/18 15:45



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-21-6''

Lab ID: 1801260-07

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0184	04/05/2018	04/06/18 13:06	
Aroclor 1221	ND	16	1	B8D0184	04/05/2018	04/06/18 13:06	
Aroclor 1232	ND	16	1	B8D0184	04/05/2018	04/06/18 13:06	
Aroclor 1242	ND	16	1	B8D0184	04/05/2018	04/06/18 13:06	
Aroclor 1248	ND	16	1	B8D0184	04/05/2018	04/06/18 13:06	
Aroclor 1254	ND	16	1	B8D0184	04/05/2018	04/06/18 13:06	
Aroclor 1260	ND	16	1	B8D0184	04/05/2018	04/06/18 13:06	
Aroclor 1262	ND	16	1	B8D0184	04/05/2018	04/06/18 13:06	
Aroclor 1268	ND	16	1	B8D0184	04/05/2018	04/06/18 13:06	
<i>Surrogate: Decachlorobiphenyl</i>	<i>67.7 %</i>	<i>14 - 109</i>		B8D0184	04/05/2018	04/06/18 13:06	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>68.7 %</i>	<i>18 - 114</i>		B8D0184	04/05/2018	04/06/18 13:06	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-21-18"

Lab ID: 1801260-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0033	04/02/2018	04/03/18 11:26	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	1	B8D0046	04/02/2018	04/06/18 11:49	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0186	04/06/2018	04/06/18 15:55	
4,4'-DDE	ND	2.0	1	B8D0186	04/06/2018	04/06/18 15:55	
4,4'-DDT	ND	2.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Aldrin	ND	1.0	1	B8D0186	04/06/2018	04/06/18 15:55	
alpha-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 15:55	
alpha-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 15:55	
beta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Chlordane	ND	8.5	1	B8D0186	04/06/2018	04/06/18 15:55	
delta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Dieldrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Endosulfan I	ND	1.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Endosulfan II	ND	2.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Endosulfan sulfate	ND	2.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Endrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Endrin aldehyde	ND	2.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Endrin ketone	ND	2.0	1	B8D0186	04/06/2018	04/06/18 15:55	
gamma-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 15:55	
gamma-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Heptachlor	ND	1.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Heptachlor epoxide	ND	1.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Methoxychlor	ND	5.0	1	B8D0186	04/06/2018	04/06/18 15:55	
Toxaphene	ND	50	1	B8D0186	04/06/2018	04/06/18 15:55	
Surrogate: Decachlorobiphenyl	63.6 %	15 - 100		B8D0186	04/06/2018	04/06/18 15:55	
Surrogate: Tetrachloro-m-xylene	51.4 %	16 - 100		B8D0186	04/06/2018	04/06/18 15:55	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-21-18"

Lab ID: 1801260-08

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0186	04/06/2018	04/06/18 17:23	
Aroclor 1221	ND	16	1	B8D0186	04/06/2018	04/06/18 17:23	
Aroclor 1232	ND	16	1	B8D0186	04/06/2018	04/06/18 17:23	
Aroclor 1242	ND	16	1	B8D0186	04/06/2018	04/06/18 17:23	
Aroclor 1248	ND	16	1	B8D0186	04/06/2018	04/06/18 17:23	
Aroclor 1254	ND	16	1	B8D0186	04/06/2018	04/06/18 17:23	
Aroclor 1260	ND	16	1	B8D0186	04/06/2018	04/06/18 17:23	
Aroclor 1262	ND	16	1	B8D0186	04/06/2018	04/06/18 17:23	
Aroclor 1268	ND	16	1	B8D0186	04/06/2018	04/06/18 17:23	
<i>Surrogate: Decachlorobiphenyl</i>	<i>66.0 %</i>	<i>14 - 109</i>		B8D0186	04/06/2018	04/06/18 17:23	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>57.7 %</i>	<i>18 - 114</i>		B8D0186	04/06/2018	04/06/18 17:23	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-21-30"

Lab ID: 1801260-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0033	04/02/2018	04/03/18 11:27	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	1	B8D0046	04/02/2018	04/06/18 11:50	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:06	
4,4'-DDE	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:06	
4,4'-DDT	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Aldrin	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:06	
alpha-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:06	
alpha-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:06	
beta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Chlordane	ND	8.5	1	B8D0186	04/06/2018	04/06/18 16:06	
delta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Dieldrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Endosulfan I	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Endosulfan II	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Endosulfan sulfate	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Endrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Endrin aldehyde	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Endrin ketone	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:06	
gamma-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:06	
gamma-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Heptachlor	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Heptachlor epoxide	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Methoxychlor	ND	5.0	1	B8D0186	04/06/2018	04/06/18 16:06	
Toxaphene	ND	50	1	B8D0186	04/06/2018	04/06/18 16:06	
Surrogate: Decachlorobiphenyl	46.1 %	15 - 100		B8D0186	04/06/2018	04/06/18 16:06	
Surrogate: Tetrachloro-m-xylene	53.4 %	16 - 100		B8D0186	04/06/2018	04/06/18 16:06	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-21-30"

Lab ID: 1801260-09

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0186	04/06/2018	04/06/18 17:41	
Aroclor 1221	ND	16	1	B8D0186	04/06/2018	04/06/18 17:41	
Aroclor 1232	ND	16	1	B8D0186	04/06/2018	04/06/18 17:41	
Aroclor 1242	ND	16	1	B8D0186	04/06/2018	04/06/18 17:41	
Aroclor 1248	ND	16	1	B8D0186	04/06/2018	04/06/18 17:41	
Aroclor 1254	ND	16	1	B8D0186	04/06/2018	04/06/18 17:41	
Aroclor 1260	ND	16	1	B8D0186	04/06/2018	04/06/18 17:41	
Aroclor 1262	ND	16	1	B8D0186	04/06/2018	04/06/18 17:41	
Aroclor 1268	ND	16	1	B8D0186	04/06/2018	04/06/18 17:41	
<i>Surrogate: Decachlorobiphenyl</i>	<i>64.1 %</i>	<i>14 - 109</i>		B8D0186	04/06/2018	<i>04/06/18 17:41</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>60.8 %</i>	<i>18 - 114</i>		B8D0186	04/06/2018	<i>04/06/18 17:41</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-22-6"

Lab ID: 1801260-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.7	1.0	1	B8D0033	04/02/2018	04/03/18 11:28	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.7	1.0	1	B8D0046	04/02/2018	04/06/18 11:51	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:04	
4,4'-DDE [2C]	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:04	
4,4'-DDT [2C]	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:04	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:04	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:04	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Chlordane [2C]	ND	8.5	1	B8D0045	04/02/2018	04/03/18 11:04	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:04	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:04	
gamma-Chlordane [2C]	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 11:04	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 11:04	

Surrogate: Decachlorobiphenyl	37.1 %	15 - 100	B8D0045	04/02/2018	04/03/18 11:04
Surrogate: Tetrachloro-m-xylene	30.0 %	16 - 100	B8D0045	04/02/2018	04/03/18 11:04



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-22-18"

Lab ID: 1801260-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0033	04/02/2018	04/03/18 11:29	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	1	B8D0046	04/02/2018	04/06/18 11:51	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:14	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:14	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:14	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:14	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:14	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 11:14	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:14	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:14	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 11:14	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 11:14	

Surrogate: Decachlorobiphenyl	46.6 %	15 - 100	B8D0045	04/02/2018	04/03/18 11:14
Surrogate: Tetrachloro-m-xylene	48.3 %	16 - 100	B8D0045	04/02/2018	04/03/18 11:14



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-22-30"

Lab ID: 1801260-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0033	04/02/2018	04/03/18 11:30	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	1	B8D0046	04/02/2018	04/06/18 11:52	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:24	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:24	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:24	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:24	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:24	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 11:24	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:24	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:24	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 11:24	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 11:24	

Surrogate: Decachlorobiphenyl	38.4 %	15 - 100	B8D0045	04/02/2018	04/03/18 11:24
Surrogate: Tetrachloro-m-xylene	37.3 %	16 - 100	B8D0045	04/02/2018	04/03/18 11:24



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-23-6"

Lab ID: 1801260-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.1	1.0	1	B8D0033	04/02/2018	04/03/18 11:31	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	1	B8D0046	04/02/2018	04/06/18 11:53	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:35	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:35	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:35	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:35	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:35	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 11:35	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:35	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:35	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 11:35	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 11:35	

Surrogate: Decachlorobiphenyl 33.0 % 15 - 100 B8D0045 04/02/2018 04/03/18 11:35

Surrogate: Tetrachloro-m-xylene 34.1 % 16 - 100 B8D0045 04/02/2018 04/03/18 11:35



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-23-18"

Lab ID: 1801260-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.0	1.0	1	B8D0033	04/02/2018	04/03/18 11:33	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	1	B8D0046	04/02/2018	04/06/18 11:54	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:45	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:45	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:45	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:45	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:45	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 11:45	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:45	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:45	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 11:45	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 11:45	
Surrogate: Decachlorobiphenyl	31.1 %	15 - 100		B8D0045	04/02/2018	04/03/18 11:45	
Surrogate: Tetrachloro-m-xylene	34.8 %	16 - 100		B8D0045	04/02/2018	04/03/18 11:45	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-23-30"

Lab ID: 1801260-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.2	1.0	1	B8D0033	04/02/2018	04/03/18 11:34	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	1	B8D0046	04/02/2018	04/06/18 11:55	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:56	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:56	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:56	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:56	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:56	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 11:56	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 11:56	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:56	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 11:56	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 11:56	

Surrogate: Decachlorobiphenyl	36.0 %	15 - 100	B8D0045	04/02/2018	04/03/18 11:56
Surrogate: Tetrachloro-m-xylene	33.7 %	16 - 100	B8D0045	04/02/2018	04/03/18 11:56



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-24-6"

Lab ID: 1801260-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.2	1.0	1	B8D0033	04/02/2018	04/03/18 11:35	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.3	1.0	1	B8D0046	04/02/2018	04/06/18 11:59	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:06	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:06	
4,4'-DDT [2C]	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:06	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:06	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:06	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 12:06	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:06	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:06	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 12:06	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 12:06	
Surrogate: Decachlorobiphenyl	39.3 %	15 - 100		B8D0045	04/02/2018	04/03/18 12:06	
Surrogate: Tetrachloro-m-xylene	32.3 %	16 - 100		B8D0045	04/02/2018	04/03/18 12:06	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-24-18"

Lab ID: 1801260-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.7	1.0	1	B8D0033	04/02/2018	04/03/18 11:39	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	1	B8D0046	04/02/2018	04/06/18 12:00	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:17	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:17	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:17	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:17	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:17	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 12:17	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:17	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:17	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 12:17	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 12:17	

Surrogate: Decachlorobiphenyl 54.4 % 15 - 100 B8D0045 04/02/2018 04/03/18 12:17

Surrogate: Tetrachloro-m-xylene 52.4 % 16 - 100 B8D0045 04/02/2018 04/03/18 12:17



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-24-30"

Lab ID: 1801260-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0033	04/02/2018	04/03/18 11:40	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	1	B8D0046	04/02/2018	04/06/18 12:00	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:27	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:27	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:27	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:27	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:27	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 12:27	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:27	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:27	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 12:27	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 12:27	
Surrogate: Decachlorobiphenyl	64.1 %	15 - 100		B8D0045	04/02/2018	04/03/18 12:27	
Surrogate: Tetrachloro-m-xylene	45.8 %	16 - 100		B8D0045	04/02/2018	04/03/18 12:27	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-25-6"

Lab ID: 1801260-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.8	1.0	1	B8D0033	04/02/2018	04/03/18 11:41	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	1	B8D0046	04/02/2018	04/06/18 12:01	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:38	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:38	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:38	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:38	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:38	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 12:38	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:38	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:38	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 12:38	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 12:38	

Surrogate: Decachlorobiphenyl 53.3 % 15 - 100 B8D0045 04/02/2018 04/03/18 12:38

Surrogate: Tetrachloro-m-xylene 45.6 % 16 - 100 B8D0045 04/02/2018 04/03/18 12:38



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-25-18"

Lab ID: 1801260-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.4	1.0	1	B8D0033	04/02/2018	04/03/18 11:42	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	1	B8D0046	04/02/2018	04/06/18 12:02	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:48	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:48	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:48	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:48	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:48	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 12:48	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:48	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:48	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 12:48	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 12:48	

Surrogate: Decachlorobiphenyl	57.5 %	15 - 100	B8D0045	04/02/2018	04/03/18 12:48
Surrogate: Tetrachloro-m-xylene	53.4 %	16 - 100	B8D0045	04/02/2018	04/03/18 12:48



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-25-30"

Lab ID: 1801260-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0036	04/02/2018	04/03/18 11:54	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B8D0047	04/02/2018	04/06/18 12:10	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:58	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:58	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:58	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:58	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:58	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 12:58	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 12:58	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:58	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 12:58	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 12:58	
Surrogate: Decachlorobiphenyl	51.9 %	15 - 100		B8D0045	04/02/2018	04/03/18 12:58	
Surrogate: Tetrachloro-m-xylene	43.7 %	16 - 100		B8D0045	04/02/2018	04/03/18 12:58	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-26-6"

Lab ID: 1801260-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.3	1.0	1	B8D0036	04/02/2018	04/03/18 11:58	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	1	B8D0047	04/02/2018	04/06/18 12:15	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:09	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:09	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:09	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:09	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:09	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 13:09	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:09	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:09	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 13:09	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 13:09	
Surrogate: Decachlorobiphenyl	63.5 %	15 - 100		B8D0045	04/02/2018	04/03/18 13:09	
Surrogate: Tetrachloro-m-xylene	54.1 %	16 - 100		B8D0045	04/02/2018	04/03/18 13:09	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-26-18"

Lab ID: 1801260-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.0	1.0	1	B8D0036	04/02/2018	04/03/18 11:59	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	1	B8D0047	04/02/2018	04/06/18 12:16	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:19	
4,4'-DDE	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:19	
4,4'-DDT	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Aldrin	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:19	
alpha-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:19	
alpha-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:19	
beta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Chlordane	ND	8.5	1	B8D0045	04/02/2018	04/03/18 13:19	
delta-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Dieldrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Endosulfan I	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Endosulfan II	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Endosulfan sulfate	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Endrin	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Endrin aldehyde	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Endrin ketone	ND	2.0	1	B8D0045	04/02/2018	04/03/18 13:19	
gamma-BHC	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:19	
gamma-Chlordane	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Heptachlor	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Heptachlor epoxide	ND	1.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Methoxychlor	ND	5.0	1	B8D0045	04/02/2018	04/03/18 13:19	
Toxaphene	ND	50	1	B8D0045	04/02/2018	04/03/18 13:19	

Surrogate: Decachlorobiphenyl 67.2 % 15 - 100 B8D0045 04/02/2018 04/03/18 13:19

Surrogate: Tetrachloro-m-xylene 53.3 % 16 - 100 B8D0045 04/02/2018 04/03/18 13:19



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-26-30"

Lab ID: 1801260-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.2	1.0	1	B8D0036	04/02/2018	04/03/18 13:18	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	1	B8D0047	04/02/2018	04/06/18 12:16	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:42	
4,4'-DDE	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:42	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:42	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:42	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:42	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/08/18 15:42	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:42	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:42	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/08/18 15:42	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/08/18 15:42	

Surrogate: Decachlorobiphenyl 58.2 % 15 - 100 B8D0218 04/06/2018 04/08/18 15:42

Surrogate: Tetrachloro-m-xylene 40.9 % 16 - 100 B8D0218 04/06/2018 04/08/18 15:42



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-35-6"

Lab ID: 1801260-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	18	1.0	1	B8D0036	04/02/2018	04/03/18 12:01	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	1	B8D0047	04/02/2018	04/06/18 12:17	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:52	
4,4'-DDE [2C]	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:52	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:52	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:52	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:52	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/08/18 15:52	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/08/18 15:52	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:52	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/08/18 15:52	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/08/18 15:52	

Surrogate: Decachlorobiphenyl	46.2 %	15 - 100	B8D0218	04/06/2018	04/08/18 15:52
Surrogate: Tetrachloro-m-xylene	38.4 %	16 - 100	B8D0218	04/06/2018	04/08/18 15:52



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-35-18"

Lab ID: 1801260-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	12	1.0	1	B8D0036	04/02/2018	04/03/18 12:02	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	1	B8D0047	04/02/2018	04/06/18 12:18	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	10	5	B8D0218	04/06/2018	04/08/18 16:02	D1
4,4'-DDE	ND	10	5	B8D0218	04/06/2018	04/08/18 16:02	D1
4,4'-DDT [2C]	ND	10	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Aldrin	ND	5.0	5	B8D0218	04/06/2018	04/08/18 16:02	D1
alpha-BHC	ND	5.0	5	B8D0218	04/06/2018	04/08/18 16:02	D1
alpha-Chlordane	ND	5.0	5	B8D0218	04/06/2018	04/08/18 16:02	D1
beta-BHC	ND	5.0	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Chlordane	ND	42	5	B8D0218	04/06/2018	04/08/18 16:02	D1
delta-BHC	ND	5.0	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Dieldrin	ND	10	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Endosulfan I	ND	5.0	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Endosulfan II	ND	10	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Endosulfan sulfate	ND	10	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Endrin	ND	10	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Endrin aldehyde	ND	10	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Endrin ketone	ND	10	5	B8D0218	04/06/2018	04/08/18 16:02	D1
gamma-BHC	ND	5.0	5	B8D0218	04/06/2018	04/08/18 16:02	D1
gamma-Chlordane	ND	5.0	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Heptachlor	ND	5.0	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Heptachlor epoxide	ND	5.0	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Methoxychlor	ND	25	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Toxaphene	ND	250	5	B8D0218	04/06/2018	04/08/18 16:02	D1
Surrogate: Decachlorobiphenyl	40.7 %	15 - 100		B8D0218	04/06/2018	04/08/18 16:02	
Surrogate: Tetrachloro-m-xylene	30.0 %	16 - 100		B8D0218	04/06/2018	04/08/18 16:02	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-35-30"

Lab ID: 1801260-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.6	1.0	1	B8D0036	04/02/2018	04/03/18 12:03	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	1	B8D0047	04/02/2018	04/06/18 12:19	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:13	
4,4'-DDE	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:13	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:13	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:13	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:13	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/08/18 16:13	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:13	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:13	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/08/18 16:13	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/08/18 16:13	

Surrogate: Decachlorobiphenyl 41.0 % 15 - 100 B8D0218 04/06/2018 04/08/18 16:13

Surrogate: Tetrachloro-m-xylene 37.2 % 16 - 100 B8D0218 04/06/2018 04/08/18 16:13



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-37-6"

Lab ID: 1801260-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	62	1.0	1	B8D0036	04/02/2018	04/03/18 12:07	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	1	B8D0047	04/02/2018	04/06/18 12:20	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:23	
4,4'-DDE [2C]	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:23	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:23	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:23	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:23	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/08/18 16:23	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/08/18 16:23	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:23	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/08/18 16:23	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/08/18 16:23	
Surrogate: Decachlorobiphenyl	36.3 %	15 - 100		B8D0218	04/06/2018	04/08/18 16:23	
Surrogate: Tetrachloro-m-xylene	35.2 %	16 - 100		B8D0218	04/06/2018	04/08/18 16:23	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-37-18"

Lab ID: 1801260-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	33	1.0	1	B8D0036	04/02/2018	04/03/18 12:08	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B8D0047	04/02/2018	04/06/18 12:21	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:49	
4,4'-DDE [2C]	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:49	
4,4'-DDT [2C]	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:49	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:49	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:49	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 09:49	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:49	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:49	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 09:49	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 09:49	

Surrogate: Decachlorobiphenyl 28.6 % 15 - 100 B8D0218 04/06/2018 04/09/18 09:49

Surrogate: Tetrachloro-m-xylene 29.9 % 16 - 100 B8D0218 04/06/2018 04/09/18 09:49



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-37-30"

Lab ID: 1801260-30

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.4	1.0	1	B8D0036	04/02/2018	04/03/18 12:09	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	1	B8D0047	04/02/2018	04/06/18 12:21	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:59	
4,4'-DDE	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:59	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:59	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:59	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:59	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 09:59	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 09:59	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:59	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 09:59	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 09:59	

Surrogate: Decachlorobiphenyl 36.3 % 15 - 100 B8D0218 04/06/2018 04/09/18 09:59

Surrogate: Tetrachloro-m-xylene 40.0 % 16 - 100 B8D0218 04/06/2018 04/09/18 09:59



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-36-6"

Lab ID: 1801260-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	17	1.0	1	B8D0036	04/02/2018	04/03/18 12:11	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	1	B8D0047	04/02/2018	04/06/18 12:24	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	10	5	B8D0218	04/06/2018	04/09/18 10:10	D1
4,4'-DDE	ND	10	5	B8D0218	04/06/2018	04/09/18 10:10	D1
4,4'-DDT [2C]	ND	10	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Aldrin	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:10	D1
alpha-BHC	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:10	D1
alpha-Chlordane	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:10	D1
beta-BHC	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Chlordane	ND	42	5	B8D0218	04/06/2018	04/09/18 10:10	D1
delta-BHC	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Dieldrin	ND	10	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Endosulfan I	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Endosulfan II	ND	10	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Endosulfan sulfate	ND	10	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Endrin	ND	10	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Endrin aldehyde	ND	10	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Endrin ketone	ND	10	5	B8D0218	04/06/2018	04/09/18 10:10	D1
gamma-BHC	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:10	D1
gamma-Chlordane	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Heptachlor	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Heptachlor epoxide	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Methoxychlor	ND	25	5	B8D0218	04/06/2018	04/09/18 10:10	D1
Toxaphene	ND	250	5	B8D0218	04/06/2018	04/09/18 10:10	D1

Surrogate: Decachlorobiphenyl 27.9 % 15 - 100 B8D0218 04/06/2018 04/09/18 10:10

Surrogate: Tetrachloro-m-xylene 28.4 % 16 - 100 B8D0218 04/06/2018 04/09/18 10:10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-36-18"

Lab ID: 1801260-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	26	1.0	1	B8D0036	04/02/2018	04/03/18 12:12	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	1	B8D0047	04/02/2018	04/06/18 12:25	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:20	
4,4'-DDE	27	2.0	1	B8D0218	04/06/2018	04/09/18 10:20	
4,4'-DDT [2C]	20	2.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:20	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:20	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:20	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Chlordane [2C]	ND	8.5	1	B8D0218	04/06/2018	04/09/18 10:20	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:20	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:20	
gamma-Chlordane [2C]	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 10:20	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 10:20	
Surrogate: Decachlorobiphenyl	28.2 %	15 - 100		B8D0218	04/06/2018	04/09/18 10:20	
Surrogate: Tetrachloro-m-xylene	30.9 %	16 - 100		B8D0218	04/06/2018	04/09/18 10:20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-36-30"

Lab ID: 1801260-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.6	1.0	1	B8D0036	04/02/2018	04/03/18 12:13	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	1	B8D0047	04/02/2018	04/06/18 12:26	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:36	
4,4'-DDE	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:36	
4,4'-DDT [2C]	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:36	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:36	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:36	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 17:36	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:36	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:36	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 17:36	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 17:36	

Surrogate: Decachlorobiphenyl	44.5 %	15 - 100	B8D0162	04/05/2018	04/05/18 17:36
Surrogate: Tetrachloro-m-xylene	50.2 %	16 - 100	B8D0162	04/05/2018	04/05/18 17:36



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-38-6"

Lab ID: 1801260-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	35	1.0	1	B8D0036	04/02/2018	04/03/18 12:14	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	1	B8D0047	04/02/2018	04/06/18 12:26	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	10	5	B8D0218	04/06/2018	04/09/18 10:30	D1
4,4'-DDE [2C]	ND	10	5	B8D0218	04/06/2018	04/09/18 10:30	D1
4,4'-DDT	ND	10	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Aldrin	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:30	D1
alpha-BHC	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:30	D1
alpha-Chlordane	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:30	D1
beta-BHC	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Chlordane	ND	42	5	B8D0218	04/06/2018	04/09/18 10:30	D1
delta-BHC	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Dieldrin	ND	10	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Endosulfan I	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Endosulfan II	ND	10	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Endosulfan sulfate	ND	10	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Endrin	ND	10	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Endrin aldehyde	ND	10	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Endrin ketone	ND	10	5	B8D0218	04/06/2018	04/09/18 10:30	D1
gamma-BHC	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:30	D1
gamma-Chlordane	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Heptachlor	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Heptachlor epoxide	ND	5.0	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Methoxychlor	ND	25	5	B8D0218	04/06/2018	04/09/18 10:30	D1
Toxaphene	ND	250	5	B8D0218	04/06/2018	04/09/18 10:30	D1

Surrogate: Decachlorobiphenyl 30.8 % 15 - 100 B8D0218 04/06/2018 04/09/18 10:30

Surrogate: Tetrachloro-m-xylene 23.8 % 16 - 100 B8D0218 04/06/2018 04/09/18 10:30



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-38-18"

Lab ID: 1801260-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.7	1.0	1	B8D0036	04/02/2018	04/03/18 12:15	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	1	B8D0047	04/02/2018	04/06/18 12:27	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:41	
4,4'-DDE	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:41	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:41	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:41	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:41	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 10:41	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:41	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:41	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 10:41	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 10:41	

Surrogate: Decachlorobiphenyl 45.1 % 15 - 100 B8D0218 04/06/2018 04/09/18 10:41

Surrogate: Tetrachloro-m-xylene 47.7 % 16 - 100 B8D0218 04/06/2018 04/09/18 10:41



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-38-30"

Lab ID: 1801260-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.0	1.0	1	B8D0036	04/02/2018	04/03/18 12:16	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	1	B8D0047	04/02/2018	04/06/18 12:28	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:46	
4,4'-DDE [2C]	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:46	
4,4'-DDT	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:46	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:46	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:46	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Chlordane [2C]	ND	8.5	1	B8D0162	04/05/2018	04/05/18 17:46	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Dieldrin [2C]	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 17:46	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:46	
gamma-Chlordane [2C]	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 17:46	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 17:46	
Surrogate: Decachlorobiphenyl	60.5 %	15 - 100		B8D0162	04/05/2018	04/05/18 17:46	
Surrogate: Tetrachloro-m-xylene	57.2 %	16 - 100		B8D0162	04/05/2018	04/05/18 17:46	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-40-6"

Lab ID: 1801260-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.1	1.0	1	B8D0036	04/02/2018	04/03/18 12:17	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	1	B8D0047	04/02/2018	04/06/18 12:29	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	4.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
4,4'-DDE	ND	4.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
4,4'-DDT [2C]	ND	4.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Aldrin	ND	2.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
alpha-BHC	ND	2.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
alpha-Chlordane	ND	2.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
beta-BHC	ND	2.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Chlordane [2C]	ND	17	2	B8D0162	04/05/2018	04/05/18 17:57	D1
delta-BHC	ND	2.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Dieldrin [2C]	ND	4.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Endosulfan I	ND	2.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Endosulfan II	ND	4.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Endosulfan sulfate	ND	4.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Endrin	ND	4.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Endrin aldehyde	ND	4.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Endrin ketone	ND	4.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
gamma-BHC	ND	2.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
gamma-Chlordane [2C]	ND	2.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Heptachlor	ND	2.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Heptachlor epoxide	ND	2.0	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Methoxychlor	ND	10	2	B8D0162	04/05/2018	04/05/18 17:57	D1
Toxaphene	ND	100	2	B8D0162	04/05/2018	04/05/18 17:57	D1

Surrogate: Decachlorobiphenyl 36.6 % 15 - 100 B8D0162 04/05/2018 04/05/18 17:57

Surrogate: Tetrachloro-m-xylene 36.5 % 16 - 100 B8D0162 04/05/2018 04/05/18 17:57



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-40-18"

Lab ID: 1801260-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.4	1.0	1	B8D0036	04/02/2018	04/03/18 12:21	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	1	B8D0047	04/02/2018	04/06/18 12:30	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:07	
4,4'-DDE	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:07	
4,4'-DDT	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:07	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:07	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:07	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 18:07	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:07	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:07	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 18:07	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 18:07	

Surrogate: Decachlorobiphenyl 56.7 % 15 - 100 B8D0162 04/05/2018 04/05/18 18:07

Surrogate: Tetrachloro-m-xylene 56.5 % 16 - 100 B8D0162 04/05/2018 04/05/18 18:07



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-40-30"

Lab ID: 1801260-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.4	1.0	1	B8D0036	04/02/2018	04/03/18 12:22	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	1	B8D0047	04/02/2018	04/06/18 12:30	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:17	
4,4'-DDE [2C]	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:17	
4,4'-DDT	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:17	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:17	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:17	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 18:17	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:17	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:17	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 18:17	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 18:17	

Surrogate: Decachlorobiphenyl 34.4 % 15 - 100 B8D0162 04/05/2018 04/05/18 18:17

Surrogate: Tetrachloro-m-xylene 35.4 % 16 - 100 B8D0162 04/05/2018 04/05/18 18:17



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-34-6"

Lab ID: 1801260-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	84	1.0	1	B8D0036	04/02/2018	04/03/18 12:23	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	14	1.0	1	B8D0047	04/02/2018	04/06/18 12:31	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:51	
4,4'-DDE [2C]	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:51	
4,4'-DDT [2C]	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:51	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:51	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:51	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 10:51	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 10:51	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:51	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 10:51	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 10:51	

Surrogate: Decachlorobiphenyl 48.1 % 15 - 100 B8D0218 04/06/2018 04/09/18 10:51

Surrogate: Tetrachloro-m-xylene 52.8 % 16 - 100 B8D0218 04/06/2018 04/09/18 10:51



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-34-18"

Lab ID: 1801260-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.6	1.0	1	B8D0037	04/02/2018	04/03/18 12:27	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	1	B8D0048	04/02/2018	04/05/18 14:56	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:28	
4,4'-DDE	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:28	
4,4'-DDT	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Aldrin	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:28	
alpha-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:28	
alpha-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:28	
beta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Chlordane	ND	8.5	1	B8D0162	04/05/2018	04/05/18 18:28	
delta-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Dieldrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Endosulfan I	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Endosulfan II	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Endosulfan sulfate	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Endrin	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Endrin aldehyde	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Endrin ketone	ND	2.0	1	B8D0162	04/05/2018	04/05/18 18:28	
gamma-BHC	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:28	
gamma-Chlordane	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Heptachlor	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Heptachlor epoxide	ND	1.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Methoxychlor	ND	5.0	1	B8D0162	04/05/2018	04/05/18 18:28	
Toxaphene	ND	50	1	B8D0162	04/05/2018	04/05/18 18:28	
Surrogate: Decachlorobiphenyl	45.2 %	15 - 100		B8D0162	04/05/2018	04/05/18 18:28	
Surrogate: Tetrachloro-m-xylene	45.1 %	16 - 100		B8D0162	04/05/2018	04/05/18 18:28	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-34-30"

Lab ID: 1801260-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0037	04/02/2018	04/03/18 12:31	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.1	1.0	1	B8D0048	04/02/2018	04/05/18 15:08	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:02	
4,4'-DDE	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:02	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:02	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:02	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:02	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 11:02	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:02	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:02	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 11:02	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 11:02	
Surrogate: Decachlorobiphenyl	35.2 %	15 - 100		B8D0218	04/06/2018	04/09/18 11:02	
Surrogate: Tetrachloro-m-xylene	48.0 %	16 - 100		B8D0218	04/06/2018	04/09/18 11:02	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-33-6"

Lab ID: 1801260-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	22	1.0	1	B8D0037	04/02/2018	04/03/18 12:32	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	1	B8D0048	04/02/2018	04/05/18 15:08	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:12	
4,4'-DDE [2C]	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:12	
4,4'-DDT [2C]	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:12	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:12	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:12	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 11:12	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:12	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:12	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 11:12	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 11:12	

Surrogate: Decachlorobiphenyl 32.1 % 15 - 100 B8D0218 04/06/2018 04/09/18 11:12

Surrogate: Tetrachloro-m-xylene 34.8 % 16 - 100 B8D0218 04/06/2018 04/09/18 11:12



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-33-18"

Lab ID: 1801260-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.4	1.0	1	B8D0037	04/02/2018	04/03/18 12:35	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B8D0048	04/02/2018	04/05/18 15:09	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:23	
4,4'-DDE	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:23	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:23	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:23	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:23	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 11:23	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:23	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:23	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 11:23	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 11:23	

Surrogate: Decachlorobiphenyl 45.5 % 15 - 100 B8D0218 04/06/2018 04/09/18 11:23

Surrogate: Tetrachloro-m-xylene 49.3 % 16 - 100 B8D0218 04/06/2018 04/09/18 11:23



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-33-30"

Lab ID: 1801260-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	1	B8D0037	04/02/2018	04/03/18 12:37	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	1	B8D0048	04/02/2018	04/05/18 15:10	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:33	
4,4'-DDE	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:33	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:33	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:33	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:33	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Chlordane	ND	8.5	1	B8D0218	04/06/2018	04/09/18 11:33	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:33	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:33	
gamma-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 11:33	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 11:33	

Surrogate: Decachlorobiphenyl	44.1 %	15 - 100	B8D0218	04/06/2018	04/09/18 11:33
Surrogate: Tetrachloro-m-xylene	47.5 %	16 - 100	B8D0218	04/06/2018	04/09/18 11:33



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-39-6"

Lab ID: 1801260-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	45	1.0	1	B8D0037	04/02/2018	04/03/18 12:38	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.5	1.0	1	B8D0048	04/02/2018	04/05/18 15:13	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:44	
4,4'-DDE [2C]	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:44	
4,4'-DDT	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Aldrin	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:44	
alpha-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:44	
alpha-Chlordane	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:44	
beta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Chlordane [2C]	ND	8.5	1	B8D0218	04/06/2018	04/09/18 11:44	
delta-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Dieldrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Endosulfan I	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Endosulfan II	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Endosulfan sulfate	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Endrin	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Endrin aldehyde	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Endrin ketone	ND	2.0	1	B8D0218	04/06/2018	04/09/18 11:44	
gamma-BHC	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:44	
gamma-Chlordane [2C]	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Heptachlor	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Heptachlor epoxide	ND	1.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Methoxychlor	ND	5.0	1	B8D0218	04/06/2018	04/09/18 11:44	
Toxaphene	ND	50	1	B8D0218	04/06/2018	04/09/18 11:44	

Surrogate: Decachlorobiphenyl 31.1 % 15 - 100 B8D0218 04/06/2018 04/09/18 11:44

Surrogate: Tetrachloro-m-xylene 32.3 % 16 - 100 B8D0218 04/06/2018 04/09/18 11:44



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-39-18"

Lab ID: 1801260-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	1	B8D0037	04/02/2018	04/03/18 12:39	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.1	1.0	1	B8D0048	04/02/2018	04/05/18 15:13	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:02	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:02	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:02	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:02	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:02	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 14:02	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:02	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:02	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 14:02	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 14:02	
Surrogate: Decachlorobiphenyl	55.0 %	15 - 100		B8D0244	04/09/2018	04/09/18 14:02	
Surrogate: Tetrachloro-m-xylene	55.4 %	16 - 100		B8D0244	04/09/2018	04/09/18 14:02	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-39-30"

Lab ID: 1801260-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	10	1.0	1	B8D0037	04/02/2018	04/03/18 12:40	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B8D0048	04/02/2018	04/05/18 15:14	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:13	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:13	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:13	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:13	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:13	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 14:13	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:13	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:13	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 14:13	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 14:13	

Surrogate: Decachlorobiphenyl 47.4 % 15 - 100 B8D0244 04/09/2018 04/09/18 14:13

Surrogate: Tetrachloro-m-xylene 51.9 % 16 - 100 B8D0244 04/09/2018 04/09/18 14:13



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-43-6''

Lab ID: 1801260-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	12	1.0	1	B8D0037	04/02/2018	04/03/18 12:41	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.3	1.0	1	B8D0048	04/02/2018	04/05/18 15:15	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:24	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:24	
4,4'-DDT [2C]	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:24	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:24	
alpha-Chlordane [2C]	1.7	1.0	1	B8D0244	04/09/2018	04/09/18 14:24	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Chlordane [2C]	17	8.5	1	B8D0244	04/09/2018	04/09/18 14:24	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:24	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:24	
gamma-Chlordane	1.3	1.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 14:24	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 14:24	
Surrogate: Decachlorobiphenyl	38.6 %	15 - 100		B8D0244	04/09/2018	04/09/18 14:24	
Surrogate: Tetrachloro-m-xylene	37.9 %	16 - 100		B8D0244	04/09/2018	04/09/18 14:24	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-43-18"

Lab ID: 1801260-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	24	1.0	1	B8D0037	04/02/2018	04/03/18 12:42	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	1	B8D0048	04/02/2018	04/05/18 15:16	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:35	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:35	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:35	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:35	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:35	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 14:35	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:35	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:35	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 14:35	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 14:35	

Surrogate: Decachlorobiphenyl	54.4 %	15 - 100	B8D0244	04/09/2018	04/09/18 14:35
Surrogate: Tetrachloro-m-xylene	59.9 %	16 - 100	B8D0244	04/09/2018	04/09/18 14:35



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-43-30"

Lab ID: 1801260-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	31	1.0	1	B8D0037	04/02/2018	04/03/18 12:43	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	1	B8D0048	04/02/2018	04/05/18 15:17	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:45	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:45	
4,4'-DDT	2.6	2.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:45	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:45	
alpha-Chlordane [2C]	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:45	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Chlordane [2C]	11	8.5	1	B8D0244	04/09/2018	04/09/18 14:45	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:45	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:45	
gamma-Chlordane	1.0	1.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 14:45	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 14:45	

Surrogate: Decachlorobiphenyl	31.3 %	15 - 100	B8D0244	04/09/2018	04/09/18 14:45
Surrogate: Tetrachloro-m-xylene	33.5 %	16 - 100	B8D0244	04/09/2018	04/09/18 14:45



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-41-6"

Lab ID: 1801260-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	14	1.0	1	B8D0037	04/02/2018	04/03/18 12:45	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	1	B8D0048	04/02/2018	04/05/18 15:18	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:56	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:56	
4,4'-DDT [2C]	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:56	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:56	
alpha-Chlordane [2C]	1.8	1.0	1	B8D0244	04/09/2018	04/09/18 14:56	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Chlordane [2C]	17	8.5	1	B8D0244	04/09/2018	04/09/18 14:56	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:56	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:56	
gamma-Chlordane	1.6	1.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 14:56	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 14:56	
Surrogate: Decachlorobiphenyl	37.7 %	15 - 100		B8D0244	04/09/2018	04/09/18 14:56	
Surrogate: Tetrachloro-m-xylene	38.0 %	16 - 100		B8D0244	04/09/2018	04/09/18 14:56	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-41-18"

Lab ID: 1801260-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.0	1.0	1	B8D0037	04/02/2018	04/03/18 12:46	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	1	B8D0048	04/02/2018	04/05/18 15:18	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:07	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:07	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:07	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:07	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:07	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 15:07	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:07	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:07	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 15:07	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 15:07	
Surrogate: Decachlorobiphenyl	32.7 %	15 - 100		B8D0244	04/09/2018	04/09/18 15:07	
Surrogate: Tetrachloro-m-xylene	35.4 %	16 - 100		B8D0244	04/09/2018	04/09/18 15:07	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-41-30"

Lab ID: 1801260-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	11	1.0	1	B8D0037	04/02/2018	04/03/18 12:49	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.0	1.0	1	B8D0048	04/02/2018	04/05/18 15:19	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:17	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:17	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:17	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:17	
alpha-Chlordane [2C]	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:17	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 15:17	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:17	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:17	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 15:17	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 15:17	
Surrogate: Decachlorobiphenyl	39.9 %	15 - 100		B8D0244	04/09/2018	04/09/18 15:17	
Surrogate: Tetrachloro-m-xylene	41.4 %	16 - 100		B8D0244	04/09/2018	04/09/18 15:17	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-42-6"

Lab ID: 1801260-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.7	1.0	1	B8D0037	04/02/2018	04/03/18 12:51	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	1	B8D0048	04/02/2018	04/05/18 15:20	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:28	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:28	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:28	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:28	
alpha-Chlordane [2C]	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:28	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Chlordane [2C]	ND	8.5	1	B8D0244	04/09/2018	04/09/18 15:28	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:28	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:28	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 15:28	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 15:28	

Surrogate: Decachlorobiphenyl 39.5 % 15 - 100 B8D0244 04/09/2018 04/09/18 15:28

Surrogate: Tetrachloro-m-xylene 40.5 % 16 - 100 B8D0244 04/09/2018 04/09/18 15:28



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-42-18"

Lab ID: 1801260-56

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.9	1.0	1	B8D0037	04/02/2018	04/03/18 12:52	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	1	B8D0048	04/02/2018	04/05/18 15:23	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:39	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:39	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:39	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:39	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:39	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 15:39	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:39	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:39	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 15:39	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 15:39	
Surrogate: Decachlorobiphenyl	37.2 %	15 - 100		B8D0244	04/09/2018	04/09/18 15:39	
Surrogate: Tetrachloro-m-xylene	39.2 %	16 - 100		B8D0244	04/09/2018	04/09/18 15:39	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-42-30"

Lab ID: 1801260-57

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.4	1.0	1	B8D0037	04/02/2018	04/03/18 12:53	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.5	1.0	1	B8D0048	04/02/2018	04/05/18 15:23	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:49	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:49	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:49	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:49	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:49	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 15:49	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:49	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:49	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 15:49	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 15:49	

Surrogate: Decachlorobiphenyl	59.0 %	15 - 100	B8D0244	04/09/2018	04/09/18 15:49
Surrogate: Tetrachloro-m-xylene	61.7 %	16 - 100	B8D0244	04/09/2018	04/09/18 15:49



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-44-6"

Lab ID: 1801260-58

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	10	1.0	1	B8D0037	04/02/2018	04/03/18 12:54	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	1	B8D0048	04/02/2018	04/05/18 15:24	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:00	
4,4'-DDE [2C]	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:00	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:00	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:00	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:00	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 16:00	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:00	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:00	
gamma-Chlordane [2C]	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 16:00	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 16:00	

Surrogate: Decachlorobiphenyl 39.8 % 15 - 100 B8D0244 04/09/2018 04/09/18 16:00

Surrogate: Tetrachloro-m-xylene 38.3 % 16 - 100 B8D0244 04/09/2018 04/09/18 16:00



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-44-18"

Lab ID: 1801260-59

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	2.0	1.0	1	B8D0037	04/02/2018	04/03/18 12:55	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	1	B8D0048	04/02/2018	04/05/18 15:25	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:11	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:11	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:11	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:11	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:11	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 16:11	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 16:11	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:11	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 16:11	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 16:11	

Surrogate: Decachlorobiphenyl 59.5 % 15 - 100 B8D0244 04/09/2018 04/09/18 16:11

Surrogate: Tetrachloro-m-xylene 63.5 % 16 - 100 B8D0244 04/09/2018 04/09/18 16:11



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-44-30"

Lab ID: 1801260-60

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.8	1.0	1	B8D0037	04/02/2018	04/03/18 12:56	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.5	1.0	1	B8D0048	04/02/2018	04/05/18 15:26	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:42	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:42	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:42	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:42	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:42	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Chlordane	ND	8.5	1	B8D0244	04/09/2018	04/09/18 14:42	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:42	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:42	
gamma-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 14:42	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 14:42	

Surrogate: Decachlorobiphenyl 49.1 % 15 - 100 B8D0244 04/09/2018 04/09/18 14:42

Surrogate: Tetrachloro-m-xylene 58.9 % 16 - 100 B8D0244 04/09/2018 04/09/18 14:42



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-45-6"

Lab ID: 1801260-61

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.3	1.0	1	B8D0038	04/02/2018	04/03/18 13:00	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.2	1.0	1	B8D0049	04/02/2018	04/05/18 15:28	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:16	
4,4'-DDE	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:16	
4,4'-DDT [2C]	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Aldrin	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:16	
alpha-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:16	
alpha-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:16	
beta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Chlordane [2C]	ND	8.5	1	B8D0186	04/06/2018	04/06/18 16:16	
delta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Dieldrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Endosulfan I	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Endosulfan II	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Endosulfan sulfate	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Endrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Endrin aldehyde	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Endrin ketone	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:16	
gamma-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:16	
gamma-Chlordane [2C]	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Heptachlor	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Heptachlor epoxide	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Methoxychlor	ND	5.0	1	B8D0186	04/06/2018	04/06/18 16:16	
Toxaphene	ND	50	1	B8D0186	04/06/2018	04/06/18 16:16	

Surrogate: Decachlorobiphenyl 51.1 % 15 - 100 B8D0186 04/06/2018 04/06/18 16:16

Surrogate: Tetrachloro-m-xylene 50.7 % 16 - 100 B8D0186 04/06/2018 04/06/18 16:16



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-45-6"

Lab ID: 1801260-61

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0186	04/06/2018	04/06/18 18:00	
Aroclor 1221	ND	16	1	B8D0186	04/06/2018	04/06/18 18:00	
Aroclor 1232	ND	16	1	B8D0186	04/06/2018	04/06/18 18:00	
Aroclor 1242	ND	16	1	B8D0186	04/06/2018	04/06/18 18:00	
Aroclor 1248	ND	16	1	B8D0186	04/06/2018	04/06/18 18:00	
Aroclor 1254	ND	16	1	B8D0186	04/06/2018	04/06/18 18:00	
Aroclor 1260	ND	16	1	B8D0186	04/06/2018	04/06/18 18:00	
Aroclor 1262	ND	16	1	B8D0186	04/06/2018	04/06/18 18:00	
Aroclor 1268	ND	16	1	B8D0186	04/06/2018	04/06/18 18:00	
<i>Surrogate: Decachlorobiphenyl</i>	<i>61.4 %</i>	<i>14 - 109</i>		B8D0186	04/06/2018	<i>04/06/18 18:00</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>62.8 %</i>	<i>18 - 114</i>		B8D0186	04/06/2018	<i>04/06/18 18:00</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-45-18"

Lab ID: 1801260-62

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	5.1	1.0	1	B8D0038	04/02/2018	04/03/18 13:06	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.9	1.0	1	B8D0049	04/02/2018	04/05/18 15:33	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:27	
4,4'-DDE	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:27	
4,4'-DDT	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Aldrin	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:27	
alpha-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:27	
alpha-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:27	
beta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Chlordane	ND	8.5	1	B8D0186	04/06/2018	04/06/18 16:27	
delta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Dieldrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Endosulfan I	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Endosulfan II	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Endosulfan sulfate	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Endrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Endrin aldehyde	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Endrin ketone	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:27	
gamma-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:27	
gamma-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Heptachlor	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Heptachlor epoxide	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Methoxychlor	ND	5.0	1	B8D0186	04/06/2018	04/06/18 16:27	
Toxaphene	ND	50	1	B8D0186	04/06/2018	04/06/18 16:27	

Surrogate: Decachlorobiphenyl	49.9 %	15 - 100	B8D0186	04/06/2018	04/06/18 16:27
Surrogate: Tetrachloro-m-xylene	52.5 %	16 - 100	B8D0186	04/06/2018	04/06/18 16:27



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-45-18"

Lab ID: 1801260-62

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0186	04/06/2018	04/06/18 18:19	
Aroclor 1221	ND	16	1	B8D0186	04/06/2018	04/06/18 18:19	
Aroclor 1232	ND	16	1	B8D0186	04/06/2018	04/06/18 18:19	
Aroclor 1242	ND	16	1	B8D0186	04/06/2018	04/06/18 18:19	
Aroclor 1248	ND	16	1	B8D0186	04/06/2018	04/06/18 18:19	
Aroclor 1254	ND	16	1	B8D0186	04/06/2018	04/06/18 18:19	
Aroclor 1260	ND	16	1	B8D0186	04/06/2018	04/06/18 18:19	
Aroclor 1262	ND	16	1	B8D0186	04/06/2018	04/06/18 18:19	
Aroclor 1268	ND	16	1	B8D0186	04/06/2018	04/06/18 18:19	
<i>Surrogate: Decachlorobiphenyl</i>	<i>60.3 %</i>	<i>14 - 109</i>		B8D0186	04/06/2018	<i>04/06/18 18:19</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>71.0 %</i>	<i>18 - 114</i>		B8D0186	04/06/2018	<i>04/06/18 18:19</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-45-30"

Lab ID: 1801260-63

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	6.3	1.0	1	B8D0038	04/02/2018	04/03/18 13:07	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.2	1.0	1	B8D0049	04/02/2018	04/05/18 15:34	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:37	
4,4'-DDE	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:37	
4,4'-DDT	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Aldrin	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:37	
alpha-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:37	
alpha-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:37	
beta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Chlordane	ND	8.5	1	B8D0186	04/06/2018	04/06/18 16:37	
delta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Dieldrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Endosulfan I	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Endosulfan II	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Endosulfan sulfate	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Endrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Endrin aldehyde	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Endrin ketone	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:37	
gamma-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:37	
gamma-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Heptachlor	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Heptachlor epoxide	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Methoxychlor	ND	5.0	1	B8D0186	04/06/2018	04/06/18 16:37	
Toxaphene	ND	50	1	B8D0186	04/06/2018	04/06/18 16:37	

Surrogate: Decachlorobiphenyl 45.9 % 15 - 100 B8D0186 04/06/2018 04/06/18 16:37

Surrogate: Tetrachloro-m-xylene 56.7 % 16 - 100 B8D0186 04/06/2018 04/06/18 16:37



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-45-30"

Lab ID: 1801260-63

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0186	04/06/2018	04/06/18 18:37	
Aroclor 1221	ND	16	1	B8D0186	04/06/2018	04/06/18 18:37	
Aroclor 1232	ND	16	1	B8D0186	04/06/2018	04/06/18 18:37	
Aroclor 1242	ND	16	1	B8D0186	04/06/2018	04/06/18 18:37	
Aroclor 1248	ND	16	1	B8D0186	04/06/2018	04/06/18 18:37	
Aroclor 1254	ND	16	1	B8D0186	04/06/2018	04/06/18 18:37	
Aroclor 1260	ND	16	1	B8D0186	04/06/2018	04/06/18 18:37	
Aroclor 1262	ND	16	1	B8D0186	04/06/2018	04/06/18 18:37	
Aroclor 1268	ND	16	1	B8D0186	04/06/2018	04/06/18 18:37	
<i>Surrogate: Decachlorobiphenyl</i>	<i>62.4 %</i>	<i>14 - 109</i>		B8D0186	04/06/2018	04/06/18 18:37	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>58.5 %</i>	<i>18 - 114</i>		B8D0186	04/06/2018	04/06/18 18:37	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-46-6"

Lab ID: 1801260-64

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	28	1.0	1	B8D0038	04/02/2018	04/03/18 13:08	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.4	1.0	1	B8D0049	04/02/2018	04/05/18 15:35	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:47	
4,4'-DDE	3.2	2.0	1	B8D0186	04/06/2018	04/06/18 16:47	
4,4'-DDT [2C]	2.5	2.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Aldrin	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:47	
alpha-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:47	
alpha-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:47	
beta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Chlordane [2C]	ND	8.5	1	B8D0186	04/06/2018	04/06/18 16:47	
delta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Dieldrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Endosulfan I [2C]	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Endosulfan II	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Endosulfan sulfate	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Endrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Endrin aldehyde	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Endrin ketone	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:47	
gamma-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:47	
gamma-Chlordane [2C]	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Heptachlor	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Heptachlor epoxide	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Methoxychlor	ND	5.0	1	B8D0186	04/06/2018	04/06/18 16:47	
Toxaphene	ND	50	1	B8D0186	04/06/2018	04/06/18 16:47	
Surrogate: Decachlorobiphenyl	54.2 %	15 - 100		B8D0186	04/06/2018	04/06/18 16:47	
Surrogate: Tetrachloro-m-xylene	59.3 %	16 - 100		B8D0186	04/06/2018	04/06/18 16:47	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-46-6"

Lab ID: 1801260-64

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0186	04/06/2018	04/06/18 18:56	
Aroclor 1221	ND	16	1	B8D0186	04/06/2018	04/06/18 18:56	
Aroclor 1232	ND	16	1	B8D0186	04/06/2018	04/06/18 18:56	
Aroclor 1242	ND	16	1	B8D0186	04/06/2018	04/06/18 18:56	
Aroclor 1248	ND	16	1	B8D0186	04/06/2018	04/06/18 18:56	
Aroclor 1254	ND	16	1	B8D0186	04/06/2018	04/06/18 18:56	
Aroclor 1260	ND	16	1	B8D0186	04/06/2018	04/06/18 18:56	
Aroclor 1262	ND	16	1	B8D0186	04/06/2018	04/06/18 18:56	
Aroclor 1268	ND	16	1	B8D0186	04/06/2018	04/06/18 18:56	
<i>Surrogate: Decachlorobiphenyl</i>	<i>71.2 %</i>	<i>14 - 109</i>		B8D0186	04/06/2018	04/06/18 18:56	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>58.6 %</i>	<i>18 - 114</i>		B8D0186	04/06/2018	04/06/18 18:56	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-46-18"

Lab ID: 1801260-65

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	8.2	1.0	1	B8D0038	04/02/2018	04/03/18 13:09	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.4	1.0	1	B8D0049	04/02/2018	04/05/18 15:36	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:58	
4,4'-DDE	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:58	
4,4'-DDT	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Aldrin	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:58	
alpha-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:58	
alpha-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:58	
beta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Chlordane	ND	8.5	1	B8D0186	04/06/2018	04/06/18 16:58	
delta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Dieldrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Endosulfan I	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Endosulfan II	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Endosulfan sulfate	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Endrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Endrin aldehyde	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Endrin ketone	ND	2.0	1	B8D0186	04/06/2018	04/06/18 16:58	
gamma-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:58	
gamma-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Heptachlor	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Heptachlor epoxide	ND	1.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Methoxychlor	ND	5.0	1	B8D0186	04/06/2018	04/06/18 16:58	
Toxaphene	ND	50	1	B8D0186	04/06/2018	04/06/18 16:58	
Surrogate: Decachlorobiphenyl	49.7 %	15 - 100		B8D0186	04/06/2018	04/06/18 16:58	
Surrogate: Tetrachloro-m-xylene	58.0 %	16 - 100		B8D0186	04/06/2018	04/06/18 16:58	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-46-18"

Lab ID: 1801260-65

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0186	04/06/2018	04/06/18 19:15	
Aroclor 1221	ND	16	1	B8D0186	04/06/2018	04/06/18 19:15	
Aroclor 1232	ND	16	1	B8D0186	04/06/2018	04/06/18 19:15	
Aroclor 1242	ND	16	1	B8D0186	04/06/2018	04/06/18 19:15	
Aroclor 1248	ND	16	1	B8D0186	04/06/2018	04/06/18 19:15	
Aroclor 1254	ND	16	1	B8D0186	04/06/2018	04/06/18 19:15	
Aroclor 1260	ND	16	1	B8D0186	04/06/2018	04/06/18 19:15	
Aroclor 1262	ND	16	1	B8D0186	04/06/2018	04/06/18 19:15	
Aroclor 1268	ND	16	1	B8D0186	04/06/2018	04/06/18 19:15	
<i>Surrogate: Decachlorobiphenyl</i>	<i>68.4 %</i>	<i>14 - 109</i>		B8D0186	04/06/2018	<i>04/06/18 19:15</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>66.6 %</i>	<i>18 - 114</i>		B8D0186	04/06/2018	<i>04/06/18 19:15</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-46-30"

Lab ID: 1801260-66

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.9	1.0	1	B8D0038	04/02/2018	04/03/18 13:11	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	1	B8D0049	04/02/2018	04/05/18 15:37	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0186	04/06/2018	04/06/18 17:08	
4,4'-DDE	ND	2.0	1	B8D0186	04/06/2018	04/06/18 17:08	
4,4'-DDT	ND	2.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Aldrin	ND	1.0	1	B8D0186	04/06/2018	04/06/18 17:08	
alpha-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 17:08	
alpha-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 17:08	
beta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Chlordane	ND	8.5	1	B8D0186	04/06/2018	04/06/18 17:08	
delta-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Dieldrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Endosulfan I	ND	1.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Endosulfan II	ND	2.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Endosulfan sulfate	ND	2.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Endrin	ND	2.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Endrin aldehyde	ND	2.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Endrin ketone	ND	2.0	1	B8D0186	04/06/2018	04/06/18 17:08	
gamma-BHC	ND	1.0	1	B8D0186	04/06/2018	04/06/18 17:08	
gamma-Chlordane	ND	1.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Heptachlor	ND	1.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Heptachlor epoxide	ND	1.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Methoxychlor	ND	5.0	1	B8D0186	04/06/2018	04/06/18 17:08	
Toxaphene	ND	50	1	B8D0186	04/06/2018	04/06/18 17:08	

Surrogate: Decachlorobiphenyl	57.0 %	15 - 100	B8D0186	04/06/2018	04/06/18 17:08
Surrogate: Tetrachloro-m-xylene	54.0 %	16 - 100	B8D0186	04/06/2018	04/06/18 17:08



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-46-30"

Lab ID: 1801260-66

Polychlorinated Biphenyls by EPA 8082

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1	B8D0186	04/06/2018	04/06/18 19:33	
Aroclor 1221	ND	16	1	B8D0186	04/06/2018	04/06/18 19:33	
Aroclor 1232	ND	16	1	B8D0186	04/06/2018	04/06/18 19:33	
Aroclor 1242	ND	16	1	B8D0186	04/06/2018	04/06/18 19:33	
Aroclor 1248	ND	16	1	B8D0186	04/06/2018	04/06/18 19:33	
Aroclor 1254	ND	16	1	B8D0186	04/06/2018	04/06/18 19:33	
Aroclor 1260	ND	16	1	B8D0186	04/06/2018	04/06/18 19:33	
Aroclor 1262	ND	16	1	B8D0186	04/06/2018	04/06/18 19:33	
Aroclor 1268	ND	16	1	B8D0186	04/06/2018	04/06/18 19:33	
<i>Surrogate: Decachlorobiphenyl</i>	<i>71.0 %</i>	<i>14 - 109</i>		B8D0186	04/06/2018	<i>04/06/18 19:33</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>70.2 %</i>	<i>18 - 114</i>		B8D0186	04/06/2018	<i>04/06/18 19:33</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-47-6"

Lab ID: 1801260-67

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	18	1.0	1	B8D0038	04/02/2018	04/03/18 13:12	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.4	1.0	1	B8D0049	04/02/2018	04/05/18 15:38	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:52	
4,4'-DDE	2.8	2.0	1	B8D0244	04/09/2018	04/09/18 14:52	
4,4'-DDT [2C]	2.7	2.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:52	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:52	
alpha-Chlordane	3.0	1.0	1	B8D0244	04/09/2018	04/09/18 14:52	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Chlordane [2C]	23	8.5	1	B8D0244	04/09/2018	04/09/18 14:52	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 14:52	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:52	
gamma-Chlordane [2C]	2.7	1.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 14:52	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 14:52	
Surrogate: Decachlorobiphenyl	39.4 %	15 - 100		B8D0244	04/09/2018	04/09/18 14:52	
Surrogate: Tetrachloro-m-xylene	42.4 %	16 - 100		B8D0244	04/09/2018	04/09/18 14:52	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-47-18"

Lab ID: 1801260-68

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.1	1.0	1	B8D0038	04/02/2018	04/03/18 13:13	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.5	1.0	1	B8D0049	04/02/2018	04/05/18 15:38	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:02	
4,4'-DDE	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:02	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:02	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:02	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:02	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Chlordane [2C]	ND	8.5	1	B8D0244	04/09/2018	04/09/18 15:02	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Dieldrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:02	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:02	
gamma-Chlordane [2C]	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 15:02	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 15:02	
Surrogate: Decachlorobiphenyl	43.3 %	15 - 100		B8D0244	04/09/2018	04/09/18 15:02	
Surrogate: Tetrachloro-m-xylene	40.4 %	16 - 100		B8D0244	04/09/2018	04/09/18 15:02	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Client Sample ID PB-47-30"

Lab ID: 1801260-69

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	28	1.0	1	B8D0038	04/02/2018	04/03/18 13:14	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.1	1.0	1	B8D0049	04/02/2018	04/05/18 15:39	

Organochlorine Pesticides by EPA 8081

Analyst: CO/

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:13	
4,4'-DDE [2C]	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:13	
4,4'-DDT	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Aldrin	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:13	
alpha-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:13	
alpha-Chlordane	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:13	
beta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Chlordane [2C]	ND	8.5	1	B8D0244	04/09/2018	04/09/18 15:13	
delta-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Dieldrin [2C]	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Endosulfan I	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Endosulfan II	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Endosulfan sulfate	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Endrin	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Endrin aldehyde	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Endrin ketone	ND	2.0	1	B8D0244	04/09/2018	04/09/18 15:13	
gamma-BHC	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:13	
gamma-Chlordane [2C]	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Heptachlor	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Heptachlor epoxide	ND	1.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Methoxychlor	ND	5.0	1	B8D0244	04/09/2018	04/09/18 15:13	
Toxaphene	ND	50	1	B8D0244	04/09/2018	04/09/18 15:13	
Surrogate: Decachlorobiphenyl	37.0 %	15 - 100		B8D0244	04/09/2018	04/09/18 15:13	
Surrogate: Tetrachloro-m-xylene	38.4 %	16 - 100		B8D0244	04/09/2018	04/09/18 15:13	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B8D0033 - EPA 3050B_S										
Blank (B8D0033-BLK1)					Prepared: 4/2/2018 Analyzed: 4/3/2018					
Lead	ND	1.0	0.18							
LCS (B8D0033-BS1)					Prepared: 4/2/2018 Analyzed: 4/3/2018					
Lead	46.6748	1.0	0.18	50.0000		93.3	80 - 120			
Matrix Spike (B8D0033-MS1)					Source: 1801260-01 Prepared: 4/2/2018 Analyzed: 4/3/2018					
Lead	88.0490	1.0	0.18	125.000	2.39733	68.5	36 - 121			
Matrix Spike Dup (B8D0033-MSD1)					Source: 1801260-01 Prepared: 4/2/2018 Analyzed: 4/3/2018					
Lead	104.668	1.0	0.18	125.000	2.39733	81.8	36 - 121	17.2	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0036 - EPA 3050B_S

Blank (B8D0036-BLK1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	ND	1.0	0.18							
------	----	-----	------	--	--	--	--	--	--	--

LCS (B8D0036-BS1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	43.2758	1.0	0.18	50.0000		86.6	80 - 120			
------	---------	-----	------	---------	--	------	----------	--	--	--

Matrix Spike (B8D0036-MS1)

Source: 1801260-21

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	75.9998	1.0	0.18	125.000	0.694422	60.2	36 - 121			
------	---------	-----	------	---------	----------	------	----------	--	--	--

Matrix Spike Dup (B8D0036-MSD1)

Source: 1801260-21

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	72.7007	1.0	0.18	125.000	0.694422	57.6	36 - 121	4.44	20	
------	---------	-----	------	---------	----------	------	----------	------	----	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0037 - EPA 3050B_S

Blank (B8D0037-BLK1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	ND	1.0	0.18							
------	----	-----	------	--	--	--	--	--	--	--

LCS (B8D0037-BS1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	43.0276	1.0	0.18	50.0000		86.1	80 - 120			
------	---------	-----	------	---------	--	------	----------	--	--	--

Matrix Spike (B8D0037-MS1)

Source: 1801260-41

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	80.1182	1.0	0.18	125.000	1.62598	62.8	36 - 121			
------	---------	-----	------	---------	---------	------	----------	--	--	--

Matrix Spike Dup (B8D0037-MSD1)

Source: 1801260-41

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	77.7310	1.0	0.18	125.000	1.62598	60.9	36 - 121	3.02	20	
------	---------	-----	------	---------	---------	------	----------	------	----	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0038 - EPA 3050B_S

Blank (B8D0038-BLK1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	ND	1.0	0.18							
------	----	-----	------	--	--	--	--	--	--	--

LCS (B8D0038-BS1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	44.3165	1.0	0.18	50.0000		88.6	80 - 120			
------	---------	-----	------	---------	--	------	----------	--	--	--

Matrix Spike (B8D0038-MS1)

Source: 1801260-61

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	84.8190	1.0	0.18	125.000	9.32606	60.4	36 - 121			
------	---------	-----	------	---------	---------	------	----------	--	--	--

Matrix Spike Dup (B8D0038-MSD1)

Source: 1801260-61

Prepared: 4/2/2018 Analyzed: 4/3/2018

Lead	88.2194	1.0	0.18	125.000	9.32606	63.1	36 - 121	3.93	20	
------	---------	-----	------	---------	---------	------	----------	------	----	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0046 - EPA 3050B MS_S

Blank (B8D0046-BLK1)

Prepared: 4/2/2018 Analyzed: 4/6/2018

Arsenic	ND	0.25	0.01
---------	----	------	------

LCS (B8D0046-BS1)

Prepared: 4/2/2018 Analyzed: 4/6/2018

Arsenic	3.90119	0.25	0.01	5.00000	78.0	70 - 130
---------	---------	------	------	---------	------	----------

Matrix Spike (B8D0046-MS1)

Source: 1801260-01

Prepared: 4/2/2018 Analyzed: 4/6/2018

Arsenic	5.86155	1.0	0.04	5.00000	2.00856	77.1	75 - 125
---------	---------	-----	------	---------	---------	------	----------

Matrix Spike Dup (B8D0046-MSD1)

Source: 1801260-01

Prepared: 4/2/2018 Analyzed: 4/6/2018

Arsenic	6.00453	1.0	0.04	5.00000	2.00856	79.9	75 - 125	2.41	20
---------	---------	-----	------	---------	---------	------	----------	------	----

Post Spike (B8D0046-PS1)

Source: 1801260-01

Prepared: 4/2/2018 Analyzed: 4/6/2018

Arsenic	5.24786			5.00000	1.00428	84.9	75 - 125
---------	---------	--	--	---------	---------	------	----------



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0047 - EPA 3050B MS_S

Blank (B8D0047-BLK1)

Prepared: 4/2/2018 Analyzed: 4/6/2018

Arsenic	ND	0.25	0.01
---------	----	------	------

LCS (B8D0047-BS1)

Prepared: 4/2/2018 Analyzed: 4/6/2018

Arsenic	3.90777	0.25	0.01	5.00000	78.2	70 - 130
---------	---------	------	------	---------	------	----------

Matrix Spike (B8D0047-MS1)

Source: 1801260-21

Prepared: 4/2/2018 Analyzed: 4/6/2018

Arsenic	4.97395	1.0	0.04	5.00000	1.21059	75.3	75 - 125
---------	---------	-----	------	---------	---------	------	----------

Matrix Spike Dup (B8D0047-MSD1)

Source: 1801260-21

Prepared: 4/2/2018 Analyzed: 4/6/2018

Arsenic	5.30929	1.0	0.04	5.00000	1.21059	82.0	75 - 125	6.52	20
---------	---------	-----	------	---------	---------	------	----------	------	----

Post Spike (B8D0047-PS1)

Source: 1801260-21

Prepared: 4/2/2018 Analyzed: 4/6/2018

Arsenic	4.73160			5.00000	0.605293	82.5	75 - 125
---------	---------	--	--	---------	----------	------	----------



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0048 - EPA 3050B MS_S

Blank (B8D0048-BLK1)

Prepared: 4/2/2018 Analyzed: 4/5/2018

Arsenic	ND	0.25	0.01
---------	----	------	------

LCS (B8D0048-BS1)

Prepared: 4/2/2018 Analyzed: 4/5/2018

Arsenic	3.92825	0.25	0.01	5.00000	78.6	70 - 130
---------	---------	------	------	---------	------	----------

Matrix Spike (B8D0048-MS1)

Source: 1801260-41

Prepared: 4/2/2018 Analyzed: 4/5/2018

Arsenic	5.52315	1.0	0.04	5.00000	1.81937	74.1	75 - 125			M1
---------	---------	-----	------	---------	---------	------	----------	--	--	----

Matrix Spike Dup (B8D0048-MSD1)

Source: 1801260-41

Prepared: 4/2/2018 Analyzed: 4/5/2018

Arsenic	5.56843	1.0	0.04	5.00000	1.81937	75.0	75 - 125	0.816	20	M1
---------	---------	-----	------	---------	---------	------	----------	-------	----	----

Post Spike (B8D0048-PS1)

Source: 1801260-41

Prepared: 4/2/2018 Analyzed: 4/5/2018

Arsenic	5.34920			5.00000	0.909683	88.8	75 - 125
---------	---------	--	--	---------	----------	------	----------



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0049 - EPA 3050B MS_S

Blank (B8D0049-BLK1)

Prepared: 4/2/2018 Analyzed: 4/5/2018

Arsenic	ND	0.25	0.01
---------	----	------	------

LCS (B8D0049-BS1)

Prepared: 4/2/2018 Analyzed: 4/5/2018

Arsenic	3.96686	0.25	0.01	5.00000	79.3	70 - 130
---------	---------	------	------	---------	------	----------

Matrix Spike (B8D0049-MS1)

Source: 1801260-61

Prepared: 4/2/2018 Analyzed: 4/5/2018

Arsenic	7.15529	1.0	0.04	5.00000	3.16909	79.7	75 - 125
---------	---------	-----	------	---------	---------	------	----------

Matrix Spike Dup (B8D0049-MSD1)

Source: 1801260-61

Prepared: 4/2/2018 Analyzed: 4/5/2018

Arsenic	7.34147	1.0	0.04	5.00000	3.16909	83.4	75 - 125	2.57	20
---------	---------	-----	------	---------	---------	------	----------	------	----

Post Spike (B8D0049-PS1)

Source: 1801260-61

Prepared: 4/2/2018 Analyzed: 4/5/2018

Arsenic	6.34273			5.00000	1.58454	95.2	75 - 125
---------	---------	--	--	---------	---------	------	----------



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0045 - GCSEMI_PCB/PEST_S

Blank (B8D0045-BLK1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0045 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0045-BLK1) - Continued

Prepared: 4/2/2018 Analyzed: 4/3/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

Surrogate: Decachlorobiphenyl	12.94		16.6667	77.6	15 - 100
Surrogate: Decachlorobiphenyl [	12.72		16.6667	76.3	15 - 100
Surrogate: Tetrachloro-m-xylene	12.71		16.6667	76.2	16 - 100
Surrogate: Tetrachloro-m-xylene	12.82		16.6667	76.9	16 - 100

LCS (B8D0045-BS1)

Prepared: 4/2/2018 Analyzed: 4/3/2018

4,4'-DDD	13.8572	2.0	0.10	16.6667	83.1	62 - 129
4,4'-DDD [2C]	13.7070	2.0	0.10	16.6667	82.2	62 - 129
4,4'-DDE	14.4832	2.0	0.07	16.6667	86.9	65 - 117
4,4'-DDE [2C]	14.2907	2.0	0.07	16.6667	85.7	65 - 117
4,4'-DDT	13.3513	2.0	0.14	16.6667	80.1	35 - 136
4,4'-DDT [2C]	13.7480	2.0	0.14	16.6667	82.5	35 - 136
Aldrin	13.9093	1.0	0.08	16.6667	83.5	67 - 110
Aldrin [2C]	13.5587	1.0	0.08	16.6667	81.4	67 - 110
alpha-BHC	13.5235	1.0	0.04	16.6667	81.1	69 - 110
alpha-BHC [2C]	13.0698	1.0	0.04	16.6667	78.4	69 - 110
alpha-Chlordane	13.7808	1.0	0.04	16.6667	82.7	65 - 114
alpha-Chlordane [2C]	13.6845	1.0	0.04	16.6667	82.1	65 - 114
beta-BHC	13.1260	1.0	0.04	16.6667	78.8	64 - 108
beta-BHC [2C]	12.8922	1.0	0.04	16.6667	77.4	64 - 108
delta-BHC	10.7775	1.0	0.04	16.6667	64.7	44 - 110
delta-BHC [2C]	10.5495	1.0	0.04	16.6667	63.3	44 - 110
Dieldrin	12.8707	2.0	0.05	16.6667	77.2	63 - 107
Dieldrin [2C]	12.9950	2.0	0.05	16.6667	78.0	63 - 107
Endosulfan I	13.0730	1.0	0.04	16.6667	78.4	63 - 103
Endosulfan I [2C]	12.9705	1.0	0.04	16.6667	77.8	63 - 103
Endosulfan II	13.6900	2.0	0.10	16.6667	82.1	62 - 122
Endosulfan II [2C]	13.8907	2.0	0.10	16.6667	83.3	62 - 122
Endosulfan sulfate	13.4105	2.0	0.06	16.6667	80.5	53 - 127
Endosulfan Sulfate [2C]	13.4172	2.0	0.06	16.6667	80.5	53 - 127
Endrin	13.9312	2.0	0.08	16.6667	83.6	66 - 120
Endrin [2C]	13.9312	2.0	0.08	16.6667	83.6	66 - 120
Endrin aldehyde	15.0452	2.0	0.09	16.6667	90.3	67 - 121
Endrin aldehyde [2C]	14.4867	2.0	0.09	16.6667	86.9	67 - 121
Endrin ketone	13.6355	2.0	0.07	16.6667	81.8	41 - 146
Endrin ketone [2C]	13.7013	2.0	0.07	16.6667	82.2	41 - 146
gamma-BHC	13.1643	1.0	0.05	16.6667	79.0	67 - 109
gamma-BHC [2C]	12.7192	1.0	0.05	16.6667	76.3	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0045 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0045-BS1) - Continued

Prepared: 4/2/2018 Analyzed: 4/3/2018

gamma-Chlordane	13.4353	1.0	0.04	16.6667		80.6	63 - 110		
gamma-Chlordane [2C]	13.2460	1.0	0.04	16.6667		79.5	63 - 110		
Heptachlor	13.7555	1.0	0.07	16.6667		82.5	67 - 120		
Heptachlor [2C]	13.7303	1.0	0.07	16.6667		82.4	67 - 120		
Heptachlor epoxide	12.9145	1.0	0.04	16.6667		77.5	62 - 108		
Heptachlor epoxide [2C]	12.9452	1.0	0.04	16.6667		77.7	62 - 108		
Methoxychlor	14.5308	5.0	0.10	16.6667		87.2	47 - 152		
Methoxychlor [2C]	15.4645	5.0	0.10	16.6667		92.8	47 - 152		
Surrogate: Decachlorobiphenyl	11.44			16.6667		68.6	15 - 100		
Surrogate: Decachlorobiphenyl [	11.30			16.6667		67.8	15 - 100		
Surrogate: Tetrachloro-m-xylene	12.34			16.6667		74.0	16 - 100		
Surrogate: Tetrachloro-m-xylene	12.81			16.6667		76.9	16 - 100		

Matrix Spike (B8D0045-MS1)

Source: 1801260-23

Prepared: 4/2/2018 Analyzed: 4/3/2018

4,4'-DDD	13.5495	2.0	0.10	16.6667	ND	81.3	0 - 127		
4,4'-DDD [2C]	21.2090	2.0	0.10	16.6667	ND	127	0 - 127		M2
4,4'-DDE	12.3723	2.0	0.07	16.6667	ND	74.2	0 - 125		
4,4'-DDE [2C]	11.6510	2.0	0.07	16.6667	ND	69.9	0 - 125		
4,4'-DDT	12.5915	2.0	0.14	16.6667	ND	75.5	0 - 103		
4,4'-DDT [2C]	12.4403	2.0	0.14	16.6667	ND	74.6	0 - 103		
Aldrin	12.1028	1.0	0.08	16.6667	ND	72.6	6 - 104		
Aldrin [2C]	11.8837	1.0	0.08	16.6667	ND	71.3	6 - 104		
alpha-BHC	12.5023	1.0	0.04	16.6667	ND	75.0	0 - 114		
alpha-BHC [2C]	12.4100	1.0	0.04	16.6667	ND	74.5	0 - 114		
alpha-Chlordane	12.3265	1.0	0.04	16.6667	ND	74.0	0 - 110		
alpha-Chlordane [2C]	12.0788	1.0	0.04	16.6667	ND	72.5	0 - 110		
beta-BHC	11.2573	1.0	0.04	16.6667	ND	67.5	0 - 129		
beta-BHC [2C]	10.4113	1.0	0.04	16.6667	ND	62.5	0 - 129		
delta-BHC	9.63133	1.0	0.04	16.6667	ND	57.8	18 - 99		
delta-BHC [2C]	9.86850	1.0	0.04	16.6667	ND	59.2	18 - 99		
Dieldrin	19.5372	2.0	0.05	16.6667	ND	117	0 - 124		
Dieldrin [2C]	11.5117	2.0	0.05	16.6667	ND	69.1	0 - 124		
Endosulfan I	11.6097	1.0	0.04	16.6667	ND	69.7	0 - 106		
Endosulfan I [2C]	11.3720	1.0	0.04	16.6667	ND	68.2	0 - 106		
Endosulfan II	13.4353	2.0	0.10	16.6667	ND	80.6	20 - 130		
Endosulfan II [2C]	12.3170	2.0	0.10	16.6667	ND	73.9	20 - 130		
Endosulfan sulfate	12.6458	2.0	0.06	16.6667	ND	75.9	24 - 119		
Endosulfan Sulfate [2C]	11.2172	2.0	0.06	16.6667	ND	67.3	24 - 119		
Endrin	13.0928	2.0	0.08	16.6667	ND	78.6	0 - 135		
Endrin [2C]	12.4915	2.0	0.08	16.6667	ND	74.9	0 - 135		
Endrin aldehyde	14.0572	2.0	0.09	16.6667	ND	84.3	19 - 132		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0045 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0045-MS1) - Continued

Source: 1801260-23

Prepared: 4/2/2018 Analyzed: 4/3/2018

Endrin aldehyde [2C]	10.9375	2.0	0.09	16.6667	ND	65.6	19 - 132		
Endrin ketone	13.0238	2.0	0.07	16.6667	ND	78.1	7 - 141		
Endrin ketone [2C]	13.2093	2.0	0.07	16.6667	ND	79.3	7 - 141		
gamma-BHC	12.2713	1.0	0.05	16.6667	ND	73.6	0 - 117		
gamma-BHC [2C]	11.9628	1.0	0.05	16.6667	ND	71.8	0 - 117		
gamma-Chlordane	10.6132	1.0	0.04	16.6667	ND	63.7	0 - 156		
gamma-Chlordane [2C]	9.86950	1.0	0.04	16.6667	ND	59.2	0 - 156		
Heptachlor	12.1377	1.0	0.07	16.6667	ND	72.8	3 - 112		
Heptachlor [2C]	12.1857	1.0	0.07	16.6667	ND	73.1	3 - 112		
Heptachlor epoxide	11.4628	1.0	0.04	16.6667	ND	68.8	0 - 118		
Heptachlor epoxide [2C]	11.4120	1.0	0.04	16.6667	ND	68.5	0 - 118		
Methoxychlor	14.1888	5.0	0.10	16.6667	ND	85.1	0 - 161		
Methoxychlor [2C]	14.4340	5.0	0.10	16.6667	ND	86.6	0 - 161		
Surrogate: Decachlorobiphenyl	11.75			16.6667		70.5	15 - 100		
Surrogate: Decachlorobiphenyl [	11.07			16.6667		66.4	15 - 100		
Surrogate: Tetrachloro-m-xylene	10.74			16.6667		64.5	16 - 100		
Surrogate: Tetrachloro-m-xylene	11.40			16.6667		68.4	16 - 100		

Matrix Spike Dup (B8D0045-MSD1)

Source: 1801260-23

Prepared: 4/2/2018 Analyzed: 4/3/2018

4,4'-DDD	13.0910	2.0	0.10	16.6667	ND	78.5	0 - 127	3.44	20
4,4'-DDD [2C]	20.7090	2.0	0.10	16.6667	ND	124	0 - 127	2.39	20
4,4'-DDE	12.1438	2.0	0.07	16.6667	ND	72.9	0 - 125	1.86	20
4,4'-DDE [2C]	11.3025	2.0	0.07	16.6667	ND	67.8	0 - 125	3.04	20
4,4'-DDT	12.1577	2.0	0.14	16.6667	ND	72.9	0 - 103	3.51	20
4,4'-DDT [2C]	12.0330	2.0	0.14	16.6667	ND	72.2	0 - 103	3.33	20
Aldrin	11.7673	1.0	0.08	16.6667	ND	70.6	6 - 104	2.81	20
Aldrin [2C]	11.4947	1.0	0.08	16.6667	ND	69.0	6 - 104	3.33	20
alpha-BHC	11.9002	1.0	0.04	16.6667	ND	71.4	0 - 114	4.94	20
alpha-BHC [2C]	11.9797	1.0	0.04	16.6667	ND	71.9	0 - 114	3.53	20
alpha-Chlordane	12.1153	1.0	0.04	16.6667	ND	72.7	0 - 110	1.73	20
alpha-Chlordane [2C]	11.6785	1.0	0.04	16.6667	ND	70.1	0 - 110	3.37	20
beta-BHC	10.1712	1.0	0.04	16.6667	ND	61.0	0 - 129	10.1	20
beta-BHC [2C]	10.1447	1.0	0.04	16.6667	ND	60.9	0 - 129	2.59	20
delta-BHC	9.33450	1.0	0.04	16.6667	ND	56.0	18 - 99	3.13	20
delta-BHC [2C]	9.55383	1.0	0.04	16.6667	ND	57.3	18 - 99	3.24	20
Dieldrin	18.9950	2.0	0.05	16.6667	ND	114	0 - 124	2.81	20
Dieldrin [2C]	11.3573	2.0	0.05	16.6667	ND	68.1	0 - 124	1.35	20
Endosulfan I	11.4690	1.0	0.04	16.6667	ND	68.8	0 - 106	1.22	20
Endosulfan I [2C]	11.3483	1.0	0.04	16.6667	ND	68.1	0 - 106	0.208	20
Endosulfan II	13.2430	2.0	0.10	16.6667	ND	79.5	20 - 130	1.44	20
Endosulfan II [2C]	12.2070	2.0	0.10	16.6667	ND	73.2	20 - 130	0.897	20



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0045 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0045-MSD1) - Continued

Source: 1801260-23

Prepared: 4/2/2018 Analyzed: 4/3/2018

Endosulfan sulfate	12.1082	2.0	0.06	16.6667	ND	72.6	24 - 119	4.34	20	
Endosulfan Sulfate [2C]	10.8780	2.0	0.06	16.6667	ND	65.3	24 - 119	3.07	20	
Endrin	12.9057	2.0	0.08	16.6667	ND	77.4	0 - 135	1.44	20	
Endrin [2C]	12.1473	2.0	0.08	16.6667	ND	72.9	0 - 135	2.79	20	
Endrin aldehyde	13.6222	2.0	0.09	16.6667	ND	81.7	19 - 132	3.14	20	
Endrin aldehyde [2C]	10.5758	2.0	0.09	16.6667	ND	63.5	19 - 132	3.36	20	
Endrin ketone	12.7763	2.0	0.07	16.6667	ND	76.7	7 - 141	1.92	20	
Endrin ketone [2C]	12.8455	2.0	0.07	16.6667	ND	77.1	7 - 141	2.79	20	
gamma-BHC	11.7430	1.0	0.05	16.6667	ND	70.5	0 - 117	4.40	20	
gamma-BHC [2C]	11.5982	1.0	0.05	16.6667	ND	69.6	0 - 117	3.10	20	
gamma-Chlordane	10.3993	1.0	0.04	16.6667	ND	62.4	0 - 156	2.04	20	
gamma-Chlordane [2C]	9.51583	1.0	0.04	16.6667	ND	57.1	0 - 156	3.65	20	
Heptachlor	11.8210	1.0	0.07	16.6667	ND	70.9	3 - 112	2.64	20	
Heptachlor [2C]	11.8160	1.0	0.07	16.6667	ND	70.9	3 - 112	3.08	20	
Heptachlor epoxide	11.1598	1.0	0.04	16.6667	ND	67.0	0 - 118	2.68	20	
Heptachlor epoxide [2C]	11.0672	1.0	0.04	16.6667	ND	66.4	0 - 118	3.07	20	
Methoxychlor	13.9393	5.0	0.10	16.6667	ND	83.6	0 - 161	1.77	20	
Methoxychlor [2C]	14.0133	5.0	0.10	16.6667	ND	84.1	0 - 161	2.96	20	
Surrogate: Decachlorobiphenyl	12.02			16.6667		72.1	15 - 100			
Surrogate: Decachlorobiphenyl [	9.962			16.6667		59.8	15 - 100			
Surrogate: Tetrachloro-m-xylene	10.19			16.6667		61.1	16 - 100			
Surrogate: Tetrachloro-m-xylene	11.06			16.6667		66.3	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0162 - GCSEMI_PCB/PEST_S

Blank (B8D0162-BLK1)

Prepared: 4/5/2018 Analyzed: 4/5/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0162 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0162-BLK1) - Continued

Prepared: 4/5/2018 Analyzed: 4/5/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>13.05</i>		<i>16.6667</i>	<i>78.3</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>12.68</i>		<i>16.6667</i>	<i>76.1</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.18</i>		<i>16.6667</i>	<i>79.1</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.35</i>		<i>16.6667</i>	<i>80.1</i>	<i>16 - 100</i>

LCS (B8D0162-BS1)

Prepared: 4/5/2018 Analyzed: 4/5/2018

4,4'-DDD	14.2357	2.0	0.10	16.6667	85.4	62 - 129
4,4'-DDD [2C]	14.2138	2.0	0.10	16.6667	85.3	62 - 129
4,4'-DDE	15.0017	2.0	0.07	16.6667	90.0	65 - 117
4,4'-DDE [2C]	14.6532	2.0	0.07	16.6667	87.9	65 - 117
4,4'-DDT	13.9263	2.0	0.14	16.6667	83.6	35 - 136
4,4'-DDT [2C]	14.3657	2.0	0.14	16.6667	86.2	35 - 136
Aldrin	14.3733	1.0	0.08	16.6667	86.2	67 - 110
Aldrin [2C]	13.9642	1.0	0.08	16.6667	83.8	67 - 110
alpha-BHC	13.6725	1.0	0.04	16.6667	82.0	69 - 110
alpha-BHC [2C]	13.2122	1.0	0.04	16.6667	79.3	69 - 110
alpha-Chlordane	14.2177	1.0	0.04	16.6667	85.3	65 - 114
alpha-Chlordane [2C]	14.0195	1.0	0.04	16.6667	84.1	65 - 114
beta-BHC	13.1992	1.0	0.04	16.6667	79.2	64 - 108
beta-BHC [2C]	13.0385	1.0	0.04	16.6667	78.2	64 - 108
delta-BHC	10.8182	1.0	0.04	16.6667	64.9	44 - 110
delta-BHC [2C]	10.5900	1.0	0.04	16.6667	63.5	44 - 110
Dieldrin	13.4237	2.0	0.05	16.6667	80.5	63 - 107
Dieldrin [2C]	13.4720	2.0	0.05	16.6667	80.8	63 - 107
Endosulfan I	13.8148	1.0	0.04	16.6667	82.9	63 - 103
Endosulfan I [2C]	13.5565	1.0	0.04	16.6667	81.3	63 - 103
Endosulfan II	14.4328	2.0	0.10	16.6667	86.6	62 - 122
Endosulfan II [2C]	14.5815	2.0	0.10	16.6667	87.5	62 - 122
Endosulfan sulfate	13.5853	2.0	0.06	16.6667	81.5	53 - 127
Endosulfan Sulfate [2C]	13.7527	2.0	0.06	16.6667	82.5	53 - 127
Endrin	14.8022	2.0	0.08	16.6667	88.8	66 - 120
Endrin [2C]	14.8223	2.0	0.08	16.6667	88.9	66 - 120
Endrin aldehyde	15.7925	2.0	0.09	16.6667	94.8	67 - 121
Endrin aldehyde [2C]	15.0722	2.0	0.09	16.6667	90.4	67 - 121
Endrin ketone	13.5598	2.0	0.07	16.6667	81.4	41 - 146
Endrin ketone [2C]	13.8005	2.0	0.07	16.6667	82.8	41 - 146
gamma-BHC	13.3192	1.0	0.05	16.6667	79.9	67 - 109
gamma-BHC [2C]	12.9295	1.0	0.05	16.6667	77.6	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0162 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0162-BS1) - Continued

Prepared: 4/5/2018 Analyzed: 4/5/2018

gamma-Chlordane	13.8535	1.0	0.04	16.6667		83.1	63 - 110		
gamma-Chlordane [2C]	13.5347	1.0	0.04	16.6667		81.2	63 - 110		
Heptachlor	14.2875	1.0	0.07	16.6667		85.7	67 - 120		
Heptachlor [2C]	14.2373	1.0	0.07	16.6667		85.4	67 - 120		
Heptachlor epoxide	13.5510	1.0	0.04	16.6667		81.3	62 - 108		
Heptachlor epoxide [2C]	13.3413	1.0	0.04	16.6667		80.0	62 - 108		
Methoxychlor	14.9345	5.0	0.10	16.6667		89.6	47 - 152		
Methoxychlor [2C]	16.3773	5.0	0.10	16.6667		98.3	47 - 152		
Surrogate: Decachlorobiphenyl	12.60			16.6667		75.6	15 - 100		
Surrogate: Decachlorobiphenyl [	12.30			16.6667		73.8	15 - 100		
Surrogate: Tetrachloro-m-xylene	12.56			16.6667		75.4	16 - 100		
Surrogate: Tetrachloro-m-xylene	13.06			16.6667		78.3	16 - 100		

Matrix Spike (B8D0162-MS1)

Source: 1801330-01

Prepared: 4/5/2018 Analyzed: 4/5/2018

4,4'-DDD	11.8380	2.0	0.10	16.6667	ND	71.0	0 - 127		
4,4'-DDD [2C]	11.0063	2.0	0.10	16.6667	ND	66.0	0 - 127		
4,4'-DDE	11.9845	2.0	0.07	16.6667	ND	71.9	0 - 125		
4,4'-DDE [2C]	11.5228	2.0	0.07	16.6667	ND	69.1	0 - 125		
4,4'-DDT	11.1658	2.0	0.14	16.6667	ND	67.0	0 - 103		
4,4'-DDT [2C]	11.1527	2.0	0.14	16.6667	ND	66.9	0 - 103		
Aldrin	11.0122	1.0	0.08	16.6667	ND	66.1	6 - 104		
Aldrin [2C]	10.6735	1.0	0.08	16.6667	ND	64.0	6 - 104		
alpha-BHC	12.1673	1.0	0.04	16.6667	ND	73.0	0 - 114		
alpha-BHC [2C]	12.2070	1.0	0.04	16.6667	ND	73.2	0 - 114		
alpha-Chlordane	11.7258	1.0	0.04	16.6667	ND	70.4	0 - 110		
alpha-Chlordane [2C]	11.1743	1.0	0.04	16.6667	ND	67.0	0 - 110		
beta-BHC	12.5517	1.0	0.04	16.6667	ND	75.3	0 - 129		
beta-BHC [2C]	12.3918	1.0	0.04	16.6667	ND	74.4	0 - 129		
delta-BHC	9.64200	1.0	0.04	16.6667	ND	57.9	18 - 99		
delta-BHC [2C]	9.61200	1.0	0.04	16.6667	ND	57.7	18 - 99		
Dieldrin	11.1757	2.0	0.05	16.6667	ND	67.1	0 - 124		
Dieldrin [2C]	10.9222	2.0	0.05	16.6667	ND	65.5	0 - 124		
Endosulfan I	11.4162	1.0	0.04	16.6667	ND	68.5	0 - 106		
Endosulfan I [2C]	10.7533	1.0	0.04	16.6667	ND	64.5	0 - 106		
Endosulfan II	12.2933	2.0	0.10	16.6667	ND	73.8	20 - 130		
Endosulfan II [2C]	11.5880	2.0	0.10	16.6667	ND	69.5	20 - 130		
Endosulfan sulfate	12.3977	2.0	0.06	16.6667	ND	74.4	24 - 119		
Endosulfan Sulfate [2C]	10.5610	2.0	0.06	16.6667	ND	63.4	24 - 119		
Endrin	12.2247	2.0	0.08	16.6667	ND	73.3	0 - 135		
Endrin [2C]	11.7275	2.0	0.08	16.6667	ND	70.4	0 - 135		
Endrin aldehyde	13.8438	2.0	0.09	16.6667	ND	83.1	19 - 132		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0162 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0162-MS1) - Continued

Source: 1801330-01

Prepared: 4/5/2018 Analyzed: 4/5/2018

Endrin aldehyde [2C]	10.4083	2.0	0.09	16.6667	ND	62.4	19 - 132		
Endrin ketone	11.8323	2.0	0.07	16.6667	ND	71.0	7 - 141		
Endrin ketone [2C]	12.2613	2.0	0.07	16.6667	ND	73.6	7 - 141		
gamma-BHC	11.8198	1.0	0.05	16.6667	ND	70.9	0 - 117		
gamma-BHC [2C]	11.6865	1.0	0.05	16.6667	ND	70.1	0 - 117		
gamma-Chlordane	11.4158	1.0	0.04	16.6667	ND	68.5	0 - 156		
gamma-Chlordane [2C]	10.3060	1.0	0.04	16.6667	ND	61.8	0 - 156		
Heptachlor	11.4482	1.0	0.07	16.6667	ND	68.7	3 - 112		
Heptachlor [2C]	11.3935	1.0	0.07	16.6667	ND	68.4	3 - 112		
Heptachlor epoxide	11.0818	1.0	0.04	16.6667	ND	66.5	0 - 118		
Heptachlor epoxide [2C]	10.7687	1.0	0.04	16.6667	ND	64.6	0 - 118		
Methoxychlor	13.9643	5.0	0.10	16.6667	ND	83.8	0 - 161		
Methoxychlor [2C]	12.7808	5.0	0.10	16.6667	ND	76.7	0 - 161		
Surrogate: Decachlorobiphenyl	9.460			16.6667		56.8	15 - 100		
Surrogate: Decachlorobiphenyl [	9.265			16.6667		55.6	15 - 100		
Surrogate: Tetrachloro-m-xylene	8.819			16.6667		52.9	16 - 100		
Surrogate: Tetrachloro-m-xylene	10.23			16.6667		61.4	16 - 100		

Matrix Spike Dup (B8D0162-MSD1)

Source: 1801330-01

Prepared: 4/5/2018 Analyzed: 4/5/2018

4,4'-DDD	12.0233	2.0	0.10	16.6667	ND	72.1	0 - 127	1.55	20
4,4'-DDD [2C]	11.2585	2.0	0.10	16.6667	ND	67.6	0 - 127	2.27	20
4,4'-DDE	12.1088	2.0	0.07	16.6667	ND	72.7	0 - 125	1.03	20
4,4'-DDE [2C]	11.6825	2.0	0.07	16.6667	ND	70.1	0 - 125	1.38	20
4,4'-DDT	11.2742	2.0	0.14	16.6667	ND	67.6	0 - 103	0.966	20
4,4'-DDT [2C]	11.4072	2.0	0.14	16.6667	ND	68.4	0 - 103	2.26	20
Aldrin	11.1103	1.0	0.08	16.6667	ND	66.7	6 - 104	0.887	20
Aldrin [2C]	10.7675	1.0	0.08	16.6667	ND	64.6	6 - 104	0.877	20
alpha-BHC	12.2965	1.0	0.04	16.6667	ND	73.8	0 - 114	1.06	20
alpha-BHC [2C]	12.3432	1.0	0.04	16.6667	ND	74.1	0 - 114	1.11	20
alpha-Chlordane	11.8632	1.0	0.04	16.6667	ND	71.2	0 - 110	1.16	20
alpha-Chlordane [2C]	11.3362	1.0	0.04	16.6667	ND	68.0	0 - 110	1.44	20
beta-BHC	12.4473	1.0	0.04	16.6667	ND	74.7	0 - 129	0.835	20
beta-BHC [2C]	12.5810	1.0	0.04	16.6667	ND	75.5	0 - 129	1.52	20
delta-BHC	9.66400	1.0	0.04	16.6667	ND	58.0	18 - 99	0.228	20
delta-BHC [2C]	9.72967	1.0	0.04	16.6667	ND	58.4	18 - 99	1.22	20
Dieldrin	11.2793	2.0	0.05	16.6667	ND	67.7	0 - 124	0.923	20
Dieldrin [2C]	11.1090	2.0	0.05	16.6667	ND	66.7	0 - 124	1.70	20
Endosulfan I	11.4518	1.0	0.04	16.6667	ND	68.7	0 - 106	0.312	20
Endosulfan I [2C]	10.8772	1.0	0.04	16.6667	ND	65.3	0 - 106	1.15	20
Endosulfan II	12.4167	2.0	0.10	16.6667	ND	74.5	20 - 130	0.998	20
Endosulfan II [2C]	11.7023	2.0	0.10	16.6667	ND	70.2	20 - 130	0.982	20



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0162 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0162-MSD1) - Continued

Source: 1801330-01

Prepared: 4/5/2018 Analyzed: 4/5/2018

Endosulfan sulfate	12.6183	2.0	0.06	16.6667	ND	75.7	24 - 119	1.76	20	
Endosulfan Sulfate [2C]	10.6183	2.0	0.06	16.6667	ND	63.7	24 - 119	0.541	20	
Endrin	12.3337	2.0	0.08	16.6667	ND	74.0	0 - 135	0.888	20	
Endrin [2C]	11.9162	2.0	0.08	16.6667	ND	71.5	0 - 135	1.60	20	
Endrin aldehyde	14.0462	2.0	0.09	16.6667	ND	84.3	19 - 132	1.45	20	
Endrin aldehyde [2C]	10.4813	2.0	0.09	16.6667	ND	62.9	19 - 132	0.699	20	
Endrin ketone	12.6410	2.0	0.07	16.6667	ND	75.8	7 - 141	6.61	20	
Endrin ketone [2C]	12.6117	2.0	0.07	16.6667	ND	75.7	7 - 141	2.82	20	
gamma-BHC	11.9180	1.0	0.05	16.6667	ND	71.5	0 - 117	0.827	20	
gamma-BHC [2C]	11.8605	1.0	0.05	16.6667	ND	71.2	0 - 117	1.48	20	
gamma-Chlordane	11.5450	1.0	0.04	16.6667	ND	69.3	0 - 156	1.13	20	
gamma-Chlordane [2C]	10.2498	1.0	0.04	16.6667	ND	61.5	0 - 156	0.547	20	
Heptachlor	11.4815	1.0	0.07	16.6667	ND	68.9	3 - 112	0.291	20	
Heptachlor [2C]	11.5373	1.0	0.07	16.6667	ND	69.2	3 - 112	1.25	20	
Heptachlor epoxide	11.1085	1.0	0.04	16.6667	ND	66.7	0 - 118	0.240	20	
Heptachlor epoxide [2C]	10.8438	1.0	0.04	16.6667	ND	65.1	0 - 118	0.696	20	
Methoxychlor	16.0978	5.0	0.10	16.6667	ND	96.6	0 - 161	14.2	20	
Methoxychlor [2C]	13.1912	5.0	0.10	16.6667	ND	79.1	0 - 161	3.16	20	
Surrogate: Decachlorobiphenyl	9.956			16.6667		59.7	15 - 100			
Surrogate: Decachlorobiphenyl [	9.145			16.6667		54.9	15 - 100			
Surrogate: Tetrachloro-m-xylene	8.891			16.6667		53.3	16 - 100			
Surrogate: Tetrachloro-m-xylene	10.34			16.6667		62.1	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S

Blank (B8D0184-BLK1)

Prepared: 4/5/2018 Analyzed: 4/6/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0184-BLK1) - Continued

Prepared: 4/5/2018 Analyzed: 4/6/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>11.98</i>			<i>16.6667</i>	<i>71.9</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.59</i>			<i>16.6667</i>	<i>69.5</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>14.38</i>			<i>16.6667</i>	<i>86.3</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.96</i>			<i>16.6667</i>	<i>83.7</i>	<i>16 - 100</i>

LCS (B8D0184-BS1)

Prepared: 4/5/2018 Analyzed: 4/6/2018

4,4'-DDD	15.5125	2.0	0.10	16.6667	93.1	62 - 129
4,4'-DDD [2C]	15.7238	2.0	0.10	16.6667	94.3	62 - 129
4,4'-DDE	15.6153	2.0	0.07	16.6667	93.7	65 - 117
4,4'-DDE [2C]	14.9892	2.0	0.07	16.6667	89.9	65 - 117
4,4'-DDT	11.7065	2.0	0.14	16.6667	70.2	35 - 136
4,4'-DDT [2C]	12.5535	2.0	0.14	16.6667	75.3	35 - 136
Aldrin	15.4563	1.0	0.08	16.6667	92.7	67 - 110
Aldrin [2C]	14.6930	1.0	0.08	16.6667	88.2	67 - 110
alpha-BHC	15.0292	1.0	0.04	16.6667	90.2	69 - 110
alpha-BHC [2C]	14.1505	1.0	0.04	16.6667	84.9	69 - 110
alpha-Chlordane	14.9750	1.0	0.04	16.6667	89.8	65 - 114
alpha-Chlordane [2C]	14.5690	1.0	0.04	16.6667	87.4	65 - 114
beta-BHC	14.8127	1.0	0.04	16.6667	88.9	64 - 108
beta-BHC [2C]	14.2522	1.0	0.04	16.6667	85.5	64 - 108
delta-BHC	12.0570	1.0	0.04	16.6667	72.3	44 - 110
delta-BHC [2C]	11.5105	1.0	0.04	16.6667	69.1	44 - 110
Dieldrin	13.9238	2.0	0.05	16.6667	83.5	63 - 107
Dieldrin [2C]	13.8578	2.0	0.05	16.6667	83.1	63 - 107
Endosulfan I	14.4395	1.0	0.04	16.6667	86.6	63 - 103
Endosulfan I [2C]	13.9962	1.0	0.04	16.6667	84.0	63 - 103
Endosulfan II	14.4915	2.0	0.10	16.6667	86.9	62 - 122
Endosulfan II [2C]	14.7123	2.0	0.10	16.6667	88.3	62 - 122
Endosulfan sulfate	13.3238	2.0	0.06	16.6667	79.9	53 - 127
Endosulfan Sulfate [2C]	13.2318	2.0	0.06	16.6667	79.4	53 - 127
Endrin	15.0592	2.0	0.08	16.6667	90.4	66 - 120
Endrin [2C]	15.1565	2.0	0.08	16.6667	90.9	66 - 120
Endrin aldehyde	15.3593	2.0	0.09	16.6667	92.2	67 - 121
Endrin aldehyde [2C]	14.7777	2.0	0.09	16.6667	88.7	67 - 121
Endrin ketone	12.8963	2.0	0.07	16.6667	77.4	41 - 146
Endrin ketone [2C]	13.3265	2.0	0.07	16.6667	80.0	41 - 146
gamma-BHC	14.6435	1.0	0.05	16.6667	87.9	67 - 109
gamma-BHC [2C]	13.9180	1.0	0.05	16.6667	83.5	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0184-BS1) - Continued

Prepared: 4/5/2018 Analyzed: 4/6/2018

gamma-Chlordane	14.7597	1.0	0.04	16.6667		88.6	63 - 110		
gamma-Chlordane [2C]	14.3493	1.0	0.04	16.6667		86.1	63 - 110		
Heptachlor	15.1662	1.0	0.07	16.6667		91.0	67 - 120		
Heptachlor [2C]	14.9458	1.0	0.07	16.6667		89.7	67 - 120		
Heptachlor epoxide	14.4330	1.0	0.04	16.6667		86.6	62 - 108		
Heptachlor epoxide [2C]	14.0870	1.0	0.04	16.6667		84.5	62 - 108		
Methoxychlor	12.5902	5.0	0.10	16.6667		75.5	47 - 152		
Methoxychlor [2C]	14.1778	5.0	0.10	16.6667		85.1	47 - 152		
Surrogate: Decachlorobiphenyl	11.42			16.6667		68.5	15 - 100		
Surrogate: Decachlorobiphenyl [	11.38			16.6667		68.3	15 - 100		
Surrogate: Tetrachloro-m-xylene	13.72			16.6667		82.3	16 - 100		
Surrogate: Tetrachloro-m-xylene	13.81			16.6667		82.8	16 - 100		

Matrix Spike (B8D0184-MS1)

Source: 1801340-01

Prepared: 4/5/2018 Analyzed: 4/6/2018

4,4'-DDD	5.60200	4.0	0.20	16.6667	ND	33.6	0 - 127		
4,4'-DDD [2C]	5.90400	4.0	0.20	16.6667	ND	35.4	0 - 127		
4,4'-DDE	6.97267	4.0	0.13	16.6667	0.272333	40.2	0 - 125		
4,4'-DDE [2C]	6.68100	4.0	0.13	16.6667	0.298000	38.3	0 - 125		
4,4'-DDT	5.28767	4.0	0.28	16.6667	0.809667	26.9	0 - 103		
4,4'-DDT [2C]	5.59833	4.0	0.28	16.6667	0.764667	29.0	0 - 103		
Aldrin	6.89533	2.0	0.16	16.6667	ND	41.4	6 - 104		
Aldrin [2C]	6.91633	2.0	0.16	16.6667	ND	41.5	6 - 104		
alpha-BHC	5.68567	2.0	0.08	16.6667	ND	34.1	0 - 114		
alpha-BHC [2C]	6.10000	2.0	0.08	16.6667	ND	36.6	0 - 114		
alpha-Chlordane	6.29267	2.0	0.07	16.6667	ND	37.8	0 - 110		
alpha-Chlordane [2C]	6.32667	2.0	0.07	16.6667	ND	38.0	0 - 110		
beta-BHC	3.89500	2.0	0.09	16.6667	ND	23.4	0 - 129		
beta-BHC [2C]	3.92233	2.0	0.09	16.6667	ND	23.5	0 - 129		
delta-BHC	2.10867	2.0	0.09	16.6667	ND	12.7	18 - 99		M1
delta-BHC [2C]	2.19767	2.0	0.09	16.6667	ND	13.2	18 - 99		M1
Dieldrin	4.06033	4.0	0.10	16.6667	ND	24.4	0 - 124		
Dieldrin [2C]	4.09267	4.0	0.10	16.6667	ND	24.6	0 - 124		
Endosulfan I	4.92467	2.0	0.07	16.6667	ND	29.5	0 - 106		
Endosulfan I [2C]	4.81600	2.0	0.07	16.6667	ND	28.9	0 - 106		
Endosulfan II	2.03133	4.0	0.21	16.6667	ND	12.2	20 - 130		M1
Endosulfan II [2C]	2.11233	4.0	0.21	16.6667	ND	12.7	20 - 130		M1
Endosulfan sulfate	1.52933	4.0	0.11	16.6667	ND	9.18	24 - 119		M1
Endosulfan Sulfate [2C]	1.54067	4.0	0.11	16.6667	ND	9.24	24 - 119		M1
Endrin	4.41800	4.0	0.16	16.6667	ND	26.5	0 - 135		
Endrin [2C]	4.60167	4.0	0.16	16.6667	ND	27.6	0 - 135		
Endrin aldehyde	1.69500	4.0	0.18	16.6667	ND	10.2	19 - 132		M1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0184-MS1) - Continued

Source: 1801340-01

Prepared: 4/5/2018 Analyzed: 4/6/2018

Endrin aldehyde [2C]	1.70800	4.0	0.18	16.6667	ND	10.2	19 - 132		M1
Endrin ketone	1.52967	4.0	0.15	16.6667	ND	9.18	7 - 141		
Endrin ketone [2C]	1.73033	4.0	0.15	16.6667	ND	10.4	7 - 141		
gamma-BHC	5.16333	2.0	0.09	16.6667	ND	31.0	0 - 117		
gamma-BHC [2C]	5.24033	2.0	0.09	16.6667	ND	31.4	0 - 117		
gamma-Chlordane	102.549	2.0	0.08	16.6667	ND	615	0 - 156		M1
gamma-Chlordane [2C]	5.74700	2.0	0.08	16.6667	ND	34.5	0 - 156		
Heptachlor	6.92567	2.0	0.13	16.6667	ND	41.6	3 - 112		
Heptachlor [2C]	7.10867	2.0	0.13	16.6667	ND	42.7	3 - 112		
Heptachlor epoxide	4.97300	2.0	0.07	16.6667	ND	29.8	0 - 118		
Heptachlor epoxide [2C]	4.95667	2.0	0.07	16.6667	ND	29.7	0 - 118		
Methoxychlor	3.13867	10	0.19	16.6667	ND	18.8	0 - 161		
Methoxychlor [2C]	3.60067	10	0.19	16.6667	ND	21.6	0 - 161		
Surrogate: Decachlorobiphenyl	5.718			16.6667		34.3	15 - 100		
Surrogate: Decachlorobiphenyl [	6.056			16.6667		36.3	15 - 100		
Surrogate: Tetrachloro-m-xylene	6.059			16.6667		36.4	16 - 100		
Surrogate: Tetrachloro-m-xylene	6.950			16.6667		41.7	16 - 100		

Matrix Spike Dup (B8D0184-MSD1)

Source: 1801340-01

Prepared: 4/5/2018 Analyzed: 4/6/2018

4,4'-DDD	5.74967	4.0	0.20	16.6667	ND	34.5	0 - 127	2.60	20	
4,4'-DDD [2C]	5.83967	4.0	0.20	16.6667	ND	35.0	0 - 127	1.10	20	
4,4'-DDE	7.31467	4.0	0.13	16.6667	0.272333	42.3	0 - 125	4.79	20	
4,4'-DDE [2C]	6.80267	4.0	0.13	16.6667	0.298000	39.0	0 - 125	1.80	20	
4,4'-DDT	5.38133	4.0	0.28	16.6667	0.809667	27.4	0 - 103	1.76	20	
4,4'-DDT [2C]	5.58100	4.0	0.28	16.6667	0.764667	28.9	0 - 103	0.310	20	
Aldrin	7.41867	2.0	0.16	16.6667	ND	44.5	6 - 104	7.31	20	
Aldrin [2C]	7.31567	2.0	0.16	16.6667	ND	43.9	6 - 104	5.61	20	
alpha-BHC	6.29367	2.0	0.08	16.6667	ND	37.8	0 - 114	10.2	20	
alpha-BHC [2C]	6.69000	2.0	0.08	16.6667	ND	40.1	0 - 114	9.23	20	
alpha-Chlordane	6.63600	2.0	0.07	16.6667	ND	39.8	0 - 110	5.31	20	
alpha-Chlordane [2C]	6.44500	2.0	0.07	16.6667	ND	38.7	0 - 110	1.85	20	
beta-BHC	4.30067	2.0	0.09	16.6667	ND	25.8	0 - 129	9.90	20	
beta-BHC [2C]	4.26200	2.0	0.09	16.6667	ND	25.6	0 - 129	8.30	20	
delta-BHC	2.38433	2.0	0.09	16.6667	ND	14.3	18 - 99	12.3	20	M1
delta-BHC [2C]	2.36733	2.0	0.09	16.6667	ND	14.2	18 - 99	7.43	20	M1
Dieldrin	4.33433	4.0	0.10	16.6667	ND	26.0	0 - 124	6.53	20	
Dieldrin [2C]	4.22833	4.0	0.10	16.6667	ND	25.4	0 - 124	3.26	20	
Endosulfan I	5.23900	2.0	0.07	16.6667	ND	31.4	0 - 106	6.19	20	
Endosulfan I [2C]	4.97500	2.0	0.07	16.6667	ND	29.8	0 - 106	3.25	20	
Endosulfan II	2.23267	4.0	0.21	16.6667	ND	13.4	20 - 130	9.44	20	M1
Endosulfan II [2C]	2.21800	4.0	0.21	16.6667	ND	13.3	20 - 130	4.88	20	M1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0184-MSD1) - Continued

Source: 1801340-01

Prepared: 4/5/2018 Analyzed: 4/6/2018

Endosulfan sulfate	1.78933	4.0	0.11	16.6667	ND	10.7	24 - 119	15.7	20	M1
Endosulfan Sulfate [2C]	1.84633	4.0	0.11	16.6667	ND	11.1	24 - 119	18.0	20	M1
Endrin	4.62100	4.0	0.16	16.6667	ND	27.7	0 - 135	4.49	20	
Endrin [2C]	4.65100	4.0	0.16	16.6667	ND	27.9	0 - 135	1.07	20	
Endrin aldehyde	1.93100	4.0	0.18	16.6667	ND	11.6	19 - 132	13.0	20	M1
Endrin aldehyde [2C]	1.80767	4.0	0.18	16.6667	ND	10.8	19 - 132	5.67	20	M1
Endrin ketone	1.76000	4.0	0.15	16.6667	ND	10.6	7 - 141	14.0	20	
Endrin ketone [2C]	1.92000	4.0	0.15	16.6667	ND	11.5	7 - 141	10.4	20	
gamma-BHC	5.71067	2.0	0.09	16.6667	ND	34.3	0 - 117	10.1	20	
gamma-BHC [2C]	5.68567	2.0	0.09	16.6667	ND	34.1	0 - 117	8.15	20	
gamma-Chlordane	108.433	2.0	0.08	16.6667	ND	651	0 - 156	5.58	20	M1
gamma-Chlordane [2C]	5.94667	2.0	0.08	16.6667	ND	35.7	0 - 156	3.41	20	
Heptachlor	7.49900	2.0	0.13	16.6667	ND	45.0	3 - 112	7.95	20	
Heptachlor [2C]	7.57500	2.0	0.13	16.6667	ND	45.4	3 - 112	6.35	20	
Heptachlor epoxide	5.46967	2.0	0.07	16.6667	ND	32.8	0 - 118	9.51	20	
Heptachlor epoxide [2C]	5.27167	2.0	0.07	16.6667	ND	31.6	0 - 118	6.16	20	
Methoxychlor	3.40633	10	0.19	16.6667	ND	20.4	0 - 161	8.18	20	
Methoxychlor [2C]	3.79900	10	0.19	16.6667	ND	22.8	0 - 161	5.36	20	
Surrogate: Decachlorobiphenyl	6.542			16.6667		39.3	15 - 100			
Surrogate: Decachlorobiphenyl [	6.376			16.6667		38.3	15 - 100			
Surrogate: Tetrachloro-m-xylene	7.058			16.6667		42.3	16 - 100			
Surrogate: Tetrachloro-m-xylene	7.484			16.6667		44.9	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S

Blank (B8D0186-BLK1)

Prepared: 4/6/2018 Analyzed: 4/6/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0186-BLK1) - Continued

Prepared: 4/6/2018 Analyzed: 4/6/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>12.16</i>			<i>16.6667</i>		<i>73.0</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.96</i>			<i>16.6667</i>		<i>71.8</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.79</i>			<i>16.6667</i>		<i>82.8</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.38</i>			<i>16.6667</i>		<i>80.3</i>	<i>16 - 100</i>

LCS (B8D0186-BS1)

Prepared: 4/6/2018 Analyzed: 4/6/2018

4,4'-DDD	17.2598	2.0	0.10	16.6667		104	62 - 129
4,4'-DDD [2C]	17.0728	2.0	0.10	16.6667		102	62 - 129
4,4'-DDE	15.8655	2.0	0.07	16.6667		95.2	65 - 117
4,4'-DDE [2C]	14.9727	2.0	0.07	16.6667		89.8	65 - 117
4,4'-DDT	10.9553	2.0	0.14	16.6667		65.7	35 - 136
4,4'-DDT [2C]	11.7573	2.0	0.14	16.6667		70.5	35 - 136
Aldrin	15.2943	1.0	0.08	16.6667		91.8	67 - 110
Aldrin [2C]	14.4490	1.0	0.08	16.6667		86.7	67 - 110
alpha-BHC	14.6358	1.0	0.04	16.6667		87.8	69 - 110
alpha-BHC [2C]	13.7650	1.0	0.04	16.6667		82.6	69 - 110
alpha-Chlordane	15.1255	1.0	0.04	16.6667		90.8	65 - 114
alpha-Chlordane [2C]	14.5252	1.0	0.04	16.6667		87.2	65 - 114
beta-BHC	14.5135	1.0	0.04	16.6667		87.1	64 - 108
beta-BHC [2C]	13.9470	1.0	0.04	16.6667		83.7	64 - 108
delta-BHC	11.7940	1.0	0.04	16.6667		70.8	44 - 110
delta-BHC [2C]	11.1773	1.0	0.04	16.6667		67.1	44 - 110
Dieldrin	14.1652	2.0	0.05	16.6667		85.0	63 - 107
Dieldrin [2C]	13.9618	2.0	0.05	16.6667		83.8	63 - 107
Endosulfan I	14.6113	1.0	0.04	16.6667		87.7	63 - 103
Endosulfan I [2C]	13.9715	1.0	0.04	16.6667		83.8	63 - 103
Endosulfan II	15.3328	2.0	0.10	16.6667		92.0	62 - 122
Endosulfan II [2C]	15.0347	2.0	0.10	16.6667		90.2	62 - 122
Endosulfan sulfate	14.4042	2.0	0.06	16.6667		86.4	53 - 127
Endosulfan Sulfate [2C]	14.2523	2.0	0.06	16.6667		85.5	53 - 127
Endrin	15.4253	2.0	0.08	16.6667		92.6	66 - 120
Endrin [2C]	15.2808	2.0	0.08	16.6667		91.7	66 - 120
Endrin aldehyde	16.3555	2.0	0.09	16.6667		98.1	67 - 121
Endrin aldehyde [2C]	15.3247	2.0	0.09	16.6667		91.9	67 - 121
Endrin ketone	13.6448	2.0	0.07	16.6667		81.9	41 - 146
Endrin ketone [2C]	14.2970	2.0	0.07	16.6667		85.8	41 - 146
gamma-BHC	14.2293	1.0	0.05	16.6667		85.4	67 - 109
gamma-BHC [2C]	13.5582	1.0	0.05	16.6667		81.3	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0186-BS1) - Continued

Prepared: 4/6/2018 Analyzed: 4/6/2018

gamma-Chlordane	14.8207	1.0	0.04	16.6667		88.9	63 - 110		
gamma-Chlordane [2C]	14.2888	1.0	0.04	16.6667		85.7	63 - 110		
Heptachlor	14.5955	1.0	0.07	16.6667		87.6	67 - 120		
Heptachlor [2C]	14.5143	1.0	0.07	16.6667		87.1	67 - 120		
Heptachlor epoxide	14.3712	1.0	0.04	16.6667		86.2	62 - 108		
Heptachlor epoxide [2C]	13.9375	1.0	0.04	16.6667		83.6	62 - 108		
Methoxychlor	12.6112	5.0	0.10	16.6667		75.7	47 - 152		
Methoxychlor [2C]	13.9393	5.0	0.10	16.6667		83.6	47 - 152		
Surrogate: Decachlorobiphenyl	12.42			16.6667		74.5	15 - 100		
Surrogate: Decachlorobiphenyl [	11.76			16.6667		70.6	15 - 100		
Surrogate: Tetrachloro-m-xylene	13.38			16.6667		80.3	16 - 100		
Surrogate: Tetrachloro-m-xylene	13.42			16.6667		80.5	16 - 100		

Matrix Spike (B8D0186-MS1)

Source: 1801359-09

Prepared: 4/6/2018 Analyzed: 4/6/2018

4,4'-DDD	6.20817	2.0	0.10	16.6667	ND	37.2	0 - 127		
4,4'-DDD [2C]	6.22400	2.0	0.10	16.6667	ND	37.3	0 - 127		
4,4'-DDE	7.94600	2.0	0.07	16.6667	0.472667	44.8	0 - 125		
4,4'-DDE [2C]	7.09833	2.0	0.07	16.6667	0.442500	39.9	0 - 125		
4,4'-DDT	5.58183	2.0	0.14	16.6667	0.211167	32.2	0 - 103		
4,4'-DDT [2C]	5.70950	2.0	0.14	16.6667	0.328833	32.3	0 - 103		
Aldrin	6.79950	1.0	0.08	16.6667	ND	40.8	6 - 104		
Aldrin [2C]	6.49950	1.0	0.08	16.6667	ND	39.0	6 - 104		
alpha-BHC	5.64733	1.0	0.04	16.6667	ND	33.9	0 - 114		
alpha-BHC [2C]	5.61800	1.0	0.04	16.6667	ND	33.7	0 - 114		
alpha-Chlordane	6.57800	1.0	0.04	16.6667	0.397833	37.1	0 - 110		
alpha-Chlordane [2C]	6.68500	1.0	0.04	16.6667	0.870000	34.9	0 - 110		
beta-BHC	3.11850	1.0	0.04	16.6667	ND	18.7	0 - 129		
beta-BHC [2C]	3.13900	1.0	0.04	16.6667	ND	18.8	0 - 129		
delta-BHC	1.21250	1.0	0.04	16.6667	ND	7.27	18 - 99		M2
delta-BHC [2C]	1.19150	1.0	0.04	16.6667	ND	7.15	18 - 99		M2
Dieldrin	2.64450	2.0	0.05	16.6667	ND	15.9	0 - 124		
Dieldrin [2C]	2.64650	2.0	0.05	16.6667	ND	15.9	0 - 124		
Endosulfan I	3.70567	1.0	0.04	16.6667	ND	22.2	0 - 106		
Endosulfan I [2C]	3.46417	1.0	0.04	16.6667	ND	20.8	0 - 106		
Endosulfan II	0.726167	2.0	0.10	16.6667	ND	4.36	20 - 130		M2
Endosulfan II [2C]	0.827667	2.0	0.10	16.6667	ND	4.97	20 - 130		M2
Endosulfan sulfate	0.569167	2.0	0.06	16.6667	ND	3.42	24 - 119		M2
Endosulfan Sulfate [2C]	0.615167	2.0	0.06	16.6667	ND	3.69	24 - 119		M2
Endrin	3.06000	2.0	0.08	16.6667	ND	18.4	0 - 135		
Endrin [2C]	3.28033	2.0	0.08	16.6667	ND	19.7	0 - 135		
Endrin aldehyde	0.677167	2.0	0.09	16.6667	ND	4.06	19 - 132		M2



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0186-MS1) - Continued

Source: 1801359-09

Prepared: 4/6/2018 Analyzed: 4/6/2018

Endrin aldehyde [2C]	0.722333	2.0	0.09	16.6667	ND	4.33	19 - 132			M2
Endrin ketone	0.693667	2.0	0.07	16.6667	ND	4.16	7 - 141			M2
Endrin ketone [2C]	0.746500	2.0	0.07	16.6667	ND	4.48	7 - 141			M2
gamma-BHC	5.03700	1.0	0.05	16.6667	ND	30.2	0 - 117			
gamma-BHC [2C]	4.71200	1.0	0.05	16.6667	ND	28.3	0 - 117			
gamma-Chlordane	58.3812	1.0	0.04	16.6667	39.5932	113	0 - 156			
gamma-Chlordane [2C]	5.64833	1.0	0.04	16.6667	0.465333	31.1	0 - 156			
Heptachlor	6.77650	1.0	0.07	16.6667	ND	40.7	3 - 112			
Heptachlor [2C]	6.63467	1.0	0.07	16.6667	ND	39.8	3 - 112			
Heptachlor epoxide	3.85717	1.0	0.04	16.6667	ND	23.1	0 - 118			
Heptachlor epoxide [2C]	3.70583	1.0	0.04	16.6667	ND	22.2	0 - 118			
Methoxychlor	1.38733	5.0	0.10	16.6667	ND	8.32	0 - 161			
Methoxychlor [2C]	1.51917	5.0	0.10	16.6667	ND	9.12	0 - 161			
Surrogate: Decachlorobiphenyl	7.384			16.6667		44.3	15 - 100			
Surrogate: Decachlorobiphenyl [	7.383			16.6667		44.3	15 - 100			
Surrogate: Tetrachloro-m-xylene	5.812			16.6667		34.9	16 - 100			
Surrogate: Tetrachloro-m-xylene	6.168			16.6667		37.0	16 - 100			

Matrix Spike Dup (B8D0186-MSD1)

Source: 1801359-09

Prepared: 4/6/2018 Analyzed: 4/6/2018

4,4'-DDD	5.97717	2.0	0.10	16.6667	ND	35.9	0 - 127	3.79	20	
4,4'-DDD [2C]	5.89683	2.0	0.10	16.6667	ND	35.4	0 - 127	5.40	20	
4,4'-DDE	7.96517	2.0	0.07	16.6667	0.472667	45.0	0 - 125	0.241	20	
4,4'-DDE [2C]	6.99850	2.0	0.07	16.6667	0.442500	39.3	0 - 125	1.42	20	
4,4'-DDT	5.12200	2.0	0.14	16.6667	0.211167	29.5	0 - 103	8.59	20	
4,4'-DDT [2C]	5.21300	2.0	0.14	16.6667	0.328833	29.3	0 - 103	9.09	20	
Aldrin	6.99400	1.0	0.08	16.6667	ND	42.0	6 - 104	2.82	20	
Aldrin [2C]	6.57167	1.0	0.08	16.6667	ND	39.4	6 - 104	1.10	20	
alpha-BHC	5.70767	1.0	0.04	16.6667	ND	34.2	0 - 114	1.06	20	
alpha-BHC [2C]	5.76733	1.0	0.04	16.6667	ND	34.6	0 - 114	2.62	20	
alpha-Chlordane	6.47150	1.0	0.04	16.6667	0.397833	36.4	0 - 110	1.63	20	
alpha-Chlordane [2C]	6.46183	1.0	0.04	16.6667	0.870000	33.6	0 - 110	3.39	20	
beta-BHC	2.99217	1.0	0.04	16.6667	ND	18.0	0 - 129	4.13	20	
beta-BHC [2C]	3.21850	1.0	0.04	16.6667	ND	19.3	0 - 129	2.50	20	
delta-BHC	1.09233	1.0	0.04	16.6667	ND	6.55	18 - 99	10.4	20	M2
delta-BHC [2C]	1.13667	1.0	0.04	16.6667	ND	6.82	18 - 99	4.71	20	M2
Dieldrin	2.39583	2.0	0.05	16.6667	ND	14.4	0 - 124	9.87	20	
Dieldrin [2C]	2.38800	2.0	0.05	16.6667	ND	14.3	0 - 124	10.3	20	
Endosulfan I	3.47850	1.0	0.04	16.6667	ND	20.9	0 - 106	6.32	20	
Endosulfan I [2C]	3.18667	1.0	0.04	16.6667	ND	19.1	0 - 106	8.34	20	
Endosulfan II	0.599667	2.0	0.10	16.6667	ND	3.60	20 - 130	19.1	20	M2
Endosulfan II [2C]	0.633333	2.0	0.10	16.6667	ND	3.80	20 - 130	26.6	20	M2, R3



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0186-MSD1) - Continued

Source: 1801359-09

Prepared: 4/6/2018 Analyzed: 4/6/2018

Endosulfan sulfate	0.525500	2.0	0.06	16.6667	ND	3.15	24 - 119	7.98	20	M2
Endosulfan Sulfate [2C]	0.486500	2.0	0.06	16.6667	ND	2.92	24 - 119	23.4	20	M2, R3
Endrin	2.75967	2.0	0.08	16.6667	ND	16.6	0 - 135	10.3	20	
Endrin [2C]	2.88267	2.0	0.08	16.6667	ND	17.3	0 - 135	12.9	20	
Endrin aldehyde	0.553167	2.0	0.09	16.6667	ND	3.32	19 - 132	20.2	20	M2, R3
Endrin aldehyde [2C]	0.605000	2.0	0.09	16.6667	ND	3.63	19 - 132	17.7	20	M2
Endrin ketone	0.567333	2.0	0.07	16.6667	ND	3.40	7 - 141	20.0	20	M2, R3
Endrin ketone [2C]	0.624000	2.0	0.07	16.6667	ND	3.74	7 - 141	17.9	20	M2
gamma-BHC	4.93417	1.0	0.05	16.6667	ND	29.6	0 - 117	2.06	20	
gamma-BHC [2C]	4.69367	1.0	0.05	16.6667	ND	28.2	0 - 117	0.390	20	
gamma-Chlordane	60.2045	1.0	0.04	16.6667	39.5932	124	0 - 156	3.08	20	
gamma-Chlordane [2C]	5.43317	1.0	0.04	16.6667	0.465333	29.8	0 - 156	3.88	20	
Heptachlor	6.96450	1.0	0.07	16.6667	ND	41.8	3 - 112	2.74	20	
Heptachlor [2C]	6.80250	1.0	0.07	16.6667	ND	40.8	3 - 112	2.50	20	
Heptachlor epoxide	3.67350	1.0	0.04	16.6667	ND	22.0	0 - 118	4.88	20	
Heptachlor epoxide [2C]	3.47150	1.0	0.04	16.6667	ND	20.8	0 - 118	6.53	20	
Methoxychlor	1.12133	5.0	0.10	16.6667	ND	6.73	0 - 161	21.2	20	R3
Methoxychlor [2C]	1.25817	5.0	0.10	16.6667	ND	7.55	0 - 161	18.8	20	
Surrogate: Decachlorobiphenyl	7.424			16.6667		44.5	15 - 100			
Surrogate: Decachlorobiphenyl [	7.173			16.6667		43.0	15 - 100			
Surrogate: Tetrachloro-m-xylene	5.986			16.6667		35.9	16 - 100			
Surrogate: Tetrachloro-m-xylene	6.507			16.6667		39.0	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0218 - GCSEMI_PCB/PEST_S

Blank (B8D0218-BLK1)

Prepared: 4/6/2018 Analyzed: 4/8/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0218 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0218-BLK1) - Continued

Prepared: 4/6/2018 Analyzed: 4/8/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>12.20</i>			<i>16.6667</i>	<i>73.2</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.74</i>			<i>16.6667</i>	<i>70.4</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.08</i>			<i>16.6667</i>	<i>78.5</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>12.74</i>			<i>16.6667</i>	<i>76.4</i>	<i>16 - 100</i>

LCS (B8D0218-BS1)

Prepared: 4/6/2018 Analyzed: 4/8/2018

4,4'-DDD	14.4453	2.0	0.10	16.6667	86.7	62 - 129
4,4'-DDD [2C]	14.3700	2.0	0.10	16.6667	86.2	62 - 129
4,4'-DDE	15.2752	2.0	0.07	16.6667	91.7	65 - 117
4,4'-DDE [2C]	14.4935	2.0	0.07	16.6667	87.0	65 - 117
4,4'-DDT	12.9160	2.0	0.14	16.6667	77.5	35 - 136
4,4'-DDT [2C]	13.6025	2.0	0.14	16.6667	81.6	35 - 136
Aldrin	14.9147	1.0	0.08	16.6667	89.5	67 - 110
Aldrin [2C]	14.2517	1.0	0.08	16.6667	85.5	67 - 110
alpha-BHC	14.3693	1.0	0.04	16.6667	86.2	69 - 110
alpha-BHC [2C]	13.5713	1.0	0.04	16.6667	81.4	69 - 110
alpha-Chlordane	14.5848	1.0	0.04	16.6667	87.5	65 - 114
alpha-Chlordane [2C]	14.1493	1.0	0.04	16.6667	84.9	65 - 114
beta-BHC	13.6702	1.0	0.04	16.6667	82.0	64 - 108
beta-BHC [2C]	13.2965	1.0	0.04	16.6667	79.8	64 - 108
delta-BHC	11.0850	1.0	0.04	16.6667	66.5	44 - 110
delta-BHC [2C]	10.6770	1.0	0.04	16.6667	64.1	44 - 110
Dieldrin	13.5662	2.0	0.05	16.6667	81.4	63 - 107
Dieldrin [2C]	13.4678	2.0	0.05	16.6667	80.8	63 - 107
Endosulfan I	13.9143	1.0	0.04	16.6667	83.5	63 - 103
Endosulfan I [2C]	13.4907	1.0	0.04	16.6667	80.9	63 - 103
Endosulfan II	14.3557	2.0	0.10	16.6667	86.1	62 - 122
Endosulfan II [2C]	14.4398	2.0	0.10	16.6667	86.6	62 - 122
Endosulfan sulfate	13.5247	2.0	0.06	16.6667	81.1	53 - 127
Endosulfan Sulfate [2C]	13.7083	2.0	0.06	16.6667	82.2	53 - 127
Endrin	14.7040	2.0	0.08	16.6667	88.2	66 - 120
Endrin [2C]	14.6715	2.0	0.08	16.6667	88.0	66 - 120
Endrin aldehyde	15.4372	2.0	0.09	16.6667	92.6	67 - 121
Endrin aldehyde [2C]	14.9088	2.0	0.09	16.6667	89.5	67 - 121
Endrin ketone	13.1695	2.0	0.07	16.6667	79.0	41 - 146
Endrin ketone [2C]	13.7588	2.0	0.07	16.6667	82.6	41 - 146
gamma-BHC	13.8617	1.0	0.05	16.6667	83.2	67 - 109
gamma-BHC [2C]	13.3330	1.0	0.05	16.6667	80.0	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0218 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0218-BS1) - Continued

Prepared: 4/6/2018 Analyzed: 4/8/2018

gamma-Chlordane	14.2468	1.0	0.04	16.6667		85.5	63 - 110		
gamma-Chlordane [2C]	13.8453	1.0	0.04	16.6667		83.1	63 - 110		
Heptachlor	14.5737	1.0	0.07	16.6667		87.4	67 - 120		
Heptachlor [2C]	14.4677	1.0	0.07	16.6667		86.8	67 - 120		
Heptachlor epoxide	13.7552	1.0	0.04	16.6667		82.5	62 - 108		
Heptachlor epoxide [2C]	13.4843	1.0	0.04	16.6667		80.9	62 - 108		
Methoxychlor	13.9010	5.0	0.10	16.6667		83.4	47 - 152		
Methoxychlor [2C]	15.4058	5.0	0.10	16.6667		92.4	47 - 152		
Surrogate: Decachlorobiphenyl	12.57			16.6667		75.4	15 - 100		
Surrogate: Decachlorobiphenyl [	12.21			16.6667		73.3	15 - 100		
Surrogate: Tetrachloro-m-xylene	13.23			16.6667		79.4	16 - 100		
Surrogate: Tetrachloro-m-xylene	13.38			16.6667		80.3	16 - 100		

Matrix Spike (B8D0218-MS1)

Source: 1801233-61

Prepared: 4/6/2018 Analyzed: 4/8/2018

4,4'-DDD	11.4520	2.0	0.10	16.6667	ND	68.7	0 - 127		
4,4'-DDD [2C]	11.0007	2.0	0.10	16.6667	ND	66.0	0 - 127		
4,4'-DDE	11.9692	2.0	0.07	16.6667	ND	71.8	0 - 125		
4,4'-DDE [2C]	11.0482	2.0	0.07	16.6667	ND	66.3	0 - 125		
4,4'-DDT	10.7082	2.0	0.14	16.6667	ND	64.2	0 - 103		
4,4'-DDT [2C]	10.7210	2.0	0.14	16.6667	ND	64.3	0 - 103		
Aldrin	11.4648	1.0	0.08	16.6667	ND	68.8	6 - 104		
Aldrin [2C]	10.8173	1.0	0.08	16.6667	ND	64.9	6 - 104		
alpha-BHC	11.2255	1.0	0.04	16.6667	ND	67.4	0 - 114		
alpha-BHC [2C]	10.7105	1.0	0.04	16.6667	ND	64.3	0 - 114		
alpha-Chlordane	11.6772	1.0	0.04	16.6667	ND	70.1	0 - 110		
alpha-Chlordane [2C]	11.8820	1.0	0.04	16.6667	ND	71.3	0 - 110		
beta-BHC	11.2088	1.0	0.04	16.6667	ND	67.3	0 - 129		
beta-BHC [2C]	10.7233	1.0	0.04	16.6667	ND	64.3	0 - 129		
delta-BHC	8.81367	1.0	0.04	16.6667	ND	52.9	18 - 99		
delta-BHC [2C]	8.54117	1.0	0.04	16.6667	ND	51.2	18 - 99		
Dieldrin	10.9243	2.0	0.05	16.6667	ND	65.5	0 - 124		
Dieldrin [2C]	10.3765	2.0	0.05	16.6667	ND	62.3	0 - 124		
Endosulfan I	10.8252	1.0	0.04	16.6667	ND	65.0	0 - 106		
Endosulfan I [2C]	10.2220	1.0	0.04	16.6667	ND	61.3	0 - 106		
Endosulfan II	11.7123	2.0	0.10	16.6667	ND	70.3	20 - 130		
Endosulfan II [2C]	10.5332	2.0	0.10	16.6667	ND	63.2	20 - 130		
Endosulfan sulfate	11.1943	2.0	0.06	16.6667	ND	67.2	24 - 119		
Endosulfan Sulfate [2C]	9.38150	2.0	0.06	16.6667	ND	56.3	24 - 119		
Endrin	11.6455	2.0	0.08	16.6667	ND	69.9	0 - 135		
Endrin [2C]	11.3277	2.0	0.08	16.6667	ND	68.0	0 - 135		
Endrin aldehyde	12.4707	2.0	0.09	16.6667	ND	74.8	19 - 132		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0218 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0218-MS1) - Continued

Source: 1801233-61

Prepared: 4/6/2018 Analyzed: 4/8/2018

Endrin aldehyde [2C]	9.67900	2.0	0.09	16.6667	ND	58.1	19 - 132			
Endrin ketone	10.5468	2.0	0.07	16.6667	ND	63.3	7 - 141			
Endrin ketone [2C]	11.3722	2.0	0.07	16.6667	ND	68.2	7 - 141			
gamma-BHC	11.0103	1.0	0.05	16.6667	ND	66.1	0 - 117			
gamma-BHC [2C]	10.5577	1.0	0.05	16.6667	ND	63.3	0 - 117			
gamma-Chlordane	11.9453	1.0	0.04	16.6667	ND	71.7	0 - 156			
gamma-Chlordane [2C]	10.5435	1.0	0.04	16.6667	ND	63.3	0 - 156			
Heptachlor	11.2968	1.0	0.07	16.6667	ND	67.8	3 - 112			
Heptachlor [2C]	11.0965	1.0	0.07	16.6667	ND	66.6	3 - 112			
Heptachlor epoxide	10.6202	1.0	0.04	16.6667	ND	63.7	0 - 118			
Heptachlor epoxide [2C]	10.3082	1.0	0.04	16.6667	ND	61.8	0 - 118			
Methoxychlor	11.0595	5.0	0.10	16.6667	ND	66.4	0 - 161			
Methoxychlor [2C]	11.6227	5.0	0.10	16.6667	ND	69.7	0 - 161			
Surrogate: Decachlorobiphenyl	9.569			16.6667		57.4	15 - 100			
Surrogate: Decachlorobiphenyl [	8.961			16.6667		53.8	15 - 100			
Surrogate: Tetrachloro-m-xylene	9.610			16.6667		57.7	16 - 100			
Surrogate: Tetrachloro-m-xylene	10.17			16.6667		61.0	16 - 100			

Matrix Spike Dup (B8D0218-MSD1)

Source: 1801233-61

Prepared: 4/6/2018 Analyzed: 4/8/2018

4,4'-DDD	10.6325	2.0	0.10	16.6667	ND	63.8	0 - 127	7.42	20	
4,4'-DDD [2C]	10.5942	2.0	0.10	16.6667	ND	63.6	0 - 127	3.76	20	
4,4'-DDE	11.3657	2.0	0.07	16.6667	ND	68.2	0 - 125	5.17	20	
4,4'-DDE [2C]	10.6173	2.0	0.07	16.6667	ND	63.7	0 - 125	3.98	20	
4,4'-DDT	9.79100	2.0	0.14	16.6667	ND	58.7	0 - 103	8.95	20	
4,4'-DDT [2C]	10.8770	2.0	0.14	16.6667	ND	65.3	0 - 103	1.44	20	
Aldrin	10.9667	1.0	0.08	16.6667	ND	65.8	6 - 104	4.44	20	
Aldrin [2C]	10.5032	1.0	0.08	16.6667	ND	63.0	6 - 104	2.95	20	
alpha-BHC	11.0255	1.0	0.04	16.6667	ND	66.2	0 - 114	1.80	20	
alpha-BHC [2C]	10.4833	1.0	0.04	16.6667	ND	62.9	0 - 114	2.14	20	
alpha-Chlordane	11.1797	1.0	0.04	16.6667	ND	67.1	0 - 110	4.35	20	
alpha-Chlordane [2C]	11.3517	1.0	0.04	16.6667	ND	68.1	0 - 110	4.57	20	
beta-BHC	11.0262	1.0	0.04	16.6667	ND	66.2	0 - 129	1.64	20	
beta-BHC [2C]	10.5108	1.0	0.04	16.6667	ND	63.1	0 - 129	2.00	20	
delta-BHC	8.50967	1.0	0.04	16.6667	ND	51.1	18 - 99	3.51	20	
delta-BHC [2C]	8.33300	1.0	0.04	16.6667	ND	50.0	18 - 99	2.47	20	
Dieldrin	10.2962	2.0	0.05	16.6667	ND	61.8	0 - 124	5.92	20	
Dieldrin [2C]	10.0348	2.0	0.05	16.6667	ND	60.2	0 - 124	3.35	20	
Endosulfan I	10.3602	1.0	0.04	16.6667	ND	62.2	0 - 106	4.39	20	
Endosulfan I [2C]	9.76783	1.0	0.04	16.6667	ND	58.6	0 - 106	4.54	20	
Endosulfan II	10.7300	2.0	0.10	16.6667	ND	64.4	20 - 130	8.75	20	
Endosulfan II [2C]	10.3482	2.0	0.10	16.6667	ND	62.1	20 - 130	1.77	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0218 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0218-MSD1) - Continued

Source: 1801233-61

Prepared: 4/6/2018 Analyzed: 4/8/2018

Endosulfan sulfate	10.5090	2.0	0.06	16.6667	ND	63.1	24 - 119	6.32	20	
Endosulfan Sulfate [2C]	9.09617	2.0	0.06	16.6667	ND	54.6	24 - 119	3.09	20	
Endrin	10.9612	2.0	0.08	16.6667	ND	65.8	0 - 135	6.05	20	
Endrin [2C]	10.9502	2.0	0.08	16.6667	ND	65.7	0 - 135	3.39	20	
Endrin aldehyde	10.8645	2.0	0.09	16.6667	ND	65.2	19 - 132	13.8	20	
Endrin aldehyde [2C]	9.30033	2.0	0.09	16.6667	ND	55.8	19 - 132	3.99	20	
Endrin ketone	10.3282	2.0	0.07	16.6667	ND	62.0	7 - 141	2.09	20	
Endrin ketone [2C]	11.0963	2.0	0.07	16.6667	ND	66.6	7 - 141	2.46	20	
gamma-BHC	10.6740	1.0	0.05	16.6667	ND	64.0	0 - 117	3.10	20	
gamma-BHC [2C]	10.2947	1.0	0.05	16.6667	ND	61.8	0 - 117	2.52	20	
gamma-Chlordane	11.6170	1.0	0.04	16.6667	ND	69.7	0 - 156	2.79	20	
gamma-Chlordane [2C]	10.0457	1.0	0.04	16.6667	ND	60.3	0 - 156	4.84	20	
Heptachlor	10.8703	1.0	0.07	16.6667	ND	65.2	3 - 112	3.85	20	
Heptachlor [2C]	10.8062	1.0	0.07	16.6667	ND	64.8	3 - 112	2.65	20	
Heptachlor epoxide	10.1872	1.0	0.04	16.6667	ND	61.1	0 - 118	4.16	20	
Heptachlor epoxide [2C]	9.92900	1.0	0.04	16.6667	ND	59.6	0 - 118	3.75	20	
Methoxychlor	11.4405	5.0	0.10	16.6667	ND	68.6	0 - 161	3.39	20	
Methoxychlor [2C]	11.2785	5.0	0.10	16.6667	ND	67.7	0 - 161	3.01	20	
Surrogate: Decachlorobiphenyl	9.330			16.6667		56.0	15 - 100			
Surrogate: Decachlorobiphenyl [	8.384			16.6667		50.3	15 - 100			
Surrogate: Tetrachloro-m-xylene	9.706			16.6667		58.2	16 - 100			
Surrogate: Tetrachloro-m-xylene	9.930			16.6667		59.6	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S

Blank (B8D0244-BLK1)

Prepared: 4/9/2018 Analyzed: 4/9/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S (continued)

Blank (B8D0244-BLK1) - Continued

Prepared: 4/9/2018 Analyzed: 4/9/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>12.82</i>			<i>16.6667</i>	<i>76.9</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.60</i>			<i>16.6667</i>	<i>69.6</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>14.32</i>			<i>16.6667</i>	<i>85.9</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>14.29</i>			<i>16.6667</i>	<i>85.8</i>	<i>16 - 100</i>

LCS (B8D0244-BS1)

Prepared: 4/9/2018 Analyzed: 4/9/2018

4,4'-DDD	14.3397	2.0	0.10	16.6667	86.0	62 - 129
4,4'-DDD [2C]	12.5295	2.0	0.10	16.6667	75.2	62 - 129
4,4'-DDE	14.9615	2.0	0.07	16.6667	89.8	65 - 117
4,4'-DDE [2C]	12.5048	2.0	0.07	16.6667	75.0	65 - 117
4,4'-DDT	13.0780	2.0	0.14	16.6667	78.5	35 - 136
4,4'-DDT [2C]	11.4005	2.0	0.14	16.6667	68.4	35 - 136
Aldrin	14.2493	1.0	0.08	16.6667	85.5	67 - 110
Aldrin [2C]	12.7077	1.0	0.08	16.6667	76.2	67 - 110
alpha-BHC	13.9228	1.0	0.04	16.6667	83.5	69 - 110
alpha-BHC [2C]	12.1860	1.0	0.04	16.6667	73.1	69 - 110
alpha-Chlordane	14.3455	1.0	0.04	16.6667	86.1	65 - 114
alpha-Chlordane [2C]	12.2143	1.0	0.04	16.6667	73.3	65 - 114
beta-BHC	14.1187	1.0	0.04	16.6667	84.7	64 - 108
beta-BHC [2C]	11.6170	1.0	0.04	16.6667	69.7	64 - 108
delta-BHC	10.9843	1.0	0.04	16.6667	65.9	44 - 110
delta-BHC [2C]	9.25950	1.0	0.04	16.6667	55.6	44 - 110
Dieldrin	13.3093	2.0	0.05	16.6667	79.9	63 - 107
Dieldrin [2C]	12.1322	2.0	0.05	16.6667	72.8	63 - 107
Endosulfan I	13.5017	1.0	0.04	16.6667	81.0	63 - 103
Endosulfan I [2C]	11.4925	1.0	0.04	16.6667	69.0	63 - 103
Endosulfan II	14.4310	2.0	0.10	16.6667	86.6	62 - 122
Endosulfan II [2C]	12.6200	2.0	0.10	16.6667	75.7	62 - 122
Endosulfan sulfate	12.8602	2.0	0.06	16.6667	77.2	53 - 127
Endosulfan Sulfate [2C]	11.1868	2.0	0.06	16.6667	67.1	53 - 127
Endrin	14.1927	2.0	0.08	16.6667	85.2	66 - 120
Endrin [2C]	13.1065	2.0	0.08	16.6667	78.6	66 - 120
Endrin aldehyde	15.1723	2.0	0.09	16.6667	91.0	67 - 121
Endrin aldehyde [2C]	12.8200	2.0	0.09	16.6667	76.9	67 - 121
Endrin ketone	13.0005	2.0	0.07	16.6667	78.0	41 - 146
Endrin ketone [2C]	11.5202	2.0	0.07	16.6667	69.1	41 - 146
gamma-BHC	13.4533	1.0	0.05	16.6667	80.7	67 - 109
gamma-BHC [2C]	12.3285	1.0	0.05	16.6667	74.0	67 - 109



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S (continued)

LCS (B8D0244-BS1) - Continued

Prepared: 4/9/2018 Analyzed: 4/9/2018

gamma-Chlordane	13.9192	1.0	0.04	16.6667		83.5	63 - 110		
gamma-Chlordane [2C]	11.8362	1.0	0.04	16.6667		71.0	63 - 110		
Heptachlor	13.5073	1.0	0.07	16.6667		81.0	67 - 120		
Heptachlor [2C]	11.6837	1.0	0.07	16.6667		70.1	67 - 120		
Heptachlor epoxide	13.5318	1.0	0.04	16.6667		81.2	62 - 108		
Heptachlor epoxide [2C]	11.2503	1.0	0.04	16.6667		67.5	62 - 108		
Methoxychlor	13.3893	5.0	0.10	16.6667		80.3	47 - 152		
Methoxychlor [2C]	12.8393	5.0	0.10	16.6667		77.0	47 - 152		
Surrogate: Decachlorobiphenyl	12.29			16.6667		73.7	15 - 100		
Surrogate: Decachlorobiphenyl [	10.06			16.6667		60.3	15 - 100		
Surrogate: Tetrachloro-m-xylene	13.94			16.6667		83.7	16 - 100		
Surrogate: Tetrachloro-m-xylene	12.04			16.6667		72.2	16 - 100		

Matrix Spike (B8D0244-MS1)

Source: 1801260-57

Prepared: 4/9/2018 Analyzed: 4/9/2018

4,4'-DDD	13.9487	2.0	0.10	16.6667	ND	83.7	0 - 127		
4,4'-DDD [2C]	9.84200	2.0	0.10	16.6667	ND	59.1	0 - 127		
4,4'-DDE	14.6663	2.0	0.07	16.6667	ND	88.0	0 - 125		
4,4'-DDE [2C]	8.76400	2.0	0.07	16.6667	ND	52.6	0 - 125		
4,4'-DDT	12.8013	2.0	0.14	16.6667	ND	76.8	0 - 103		
4,4'-DDT [2C]	8.40650	2.0	0.14	16.6667	ND	50.4	0 - 103		
Aldrin	13.5608	1.0	0.08	16.6667	ND	81.4	6 - 104		
Aldrin [2C]	9.91083	1.0	0.08	16.6667	ND	59.5	6 - 104		
alpha-BHC	13.6262	1.0	0.04	16.6667	ND	81.8	0 - 114		
alpha-BHC [2C]	10.6572	1.0	0.04	16.6667	ND	63.9	0 - 114		
alpha-Chlordane	13.7653	1.0	0.04	16.6667	ND	82.6	0 - 110		
alpha-Chlordane [2C]	9.28200	1.0	0.04	16.6667	ND	55.7	0 - 110		
beta-BHC	14.0998	1.0	0.04	16.6667	ND	84.6	0 - 129		
beta-BHC [2C]	10.4430	1.0	0.04	16.6667	ND	62.7	0 - 129		
delta-BHC	10.8418	1.0	0.04	16.6667	ND	65.1	18 - 99		
delta-BHC [2C]	7.13317	1.0	0.04	16.6667	ND	42.8	18 - 99		
Dieldrin	12.9223	2.0	0.05	16.6667	ND	77.5	0 - 124		
Dieldrin [2C]	9.20800	2.0	0.05	16.6667	ND	55.2	0 - 124		
Endosulfan I	12.9117	1.0	0.04	16.6667	ND	77.5	0 - 106		
Endosulfan I [2C]	8.73750	1.0	0.04	16.6667	ND	52.4	0 - 106		
Endosulfan II	13.9325	2.0	0.10	16.6667	ND	83.6	20 - 130		
Endosulfan II [2C]	9.40183	2.0	0.10	16.6667	ND	56.4	20 - 130		
Endosulfan sulfate	12.3315	2.0	0.06	16.6667	ND	74.0	24 - 119		
Endosulfan Sulfate [2C]	8.41350	2.0	0.06	16.6667	ND	50.5	24 - 119		
Endrin	13.7277	2.0	0.08	16.6667	ND	82.4	0 - 135		
Endrin [2C]	9.69333	2.0	0.08	16.6667	ND	58.2	0 - 135		
Endrin aldehyde	14.7023	2.0	0.09	16.6667	ND	88.2	19 - 132		



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8D0244-MS1) - Continued

Source: 1801260-57

Prepared: 4/9/2018 Analyzed: 4/9/2018

Endrin aldehyde [2C]	9.59500	2.0	0.09	16.6667	ND	57.6	19 - 132			
Endrin ketone	12.6647	2.0	0.07	16.6667	ND	76.0	7 - 141			
Endrin ketone [2C]	8.52983	2.0	0.07	16.6667	ND	51.2	7 - 141			
gamma-BHC	13.1603	1.0	0.05	16.6667	ND	79.0	0 - 117			
gamma-BHC [2C]	10.5335	1.0	0.05	16.6667	ND	63.2	0 - 117			
gamma-Chlordane	13.2713	1.0	0.04	16.6667	ND	79.6	0 - 156			
gamma-Chlordane [2C]	10.9535	1.0	0.04	16.6667	ND	65.7	0 - 156			
Heptachlor	12.9990	1.0	0.07	16.6667	ND	78.0	3 - 112			
Heptachlor [2C]	9.42967	1.0	0.07	16.6667	ND	56.6	3 - 112			
Heptachlor epoxide	13.0777	1.0	0.04	16.6667	ND	78.5	0 - 118			
Heptachlor epoxide [2C]	8.39217	1.0	0.04	16.6667	ND	50.4	0 - 118			
Methoxychlor	13.6900	5.0	0.10	16.6667	ND	82.1	0 - 161			
Methoxychlor [2C]	10.0615	5.0	0.10	16.6667	ND	60.4	0 - 161			
Surrogate: Decachlorobiphenyl	10.22			16.6667		61.3	15 - 100			
Surrogate: Decachlorobiphenyl [	6.307			16.6667		37.8	15 - 100			
Surrogate: Tetrachloro-m-xylene	10.67			16.6667		64.0	16 - 100			
Surrogate: Tetrachloro-m-xylene	8.261			16.6667		49.6	16 - 100			

Matrix Spike Dup (B8D0244-MSD1)

Source: 1801260-57

Prepared: 4/9/2018 Analyzed: 4/9/2018

4,4'-DDD	13.6612	2.0	0.10	16.6667	ND	82.0	0 - 127	2.08	20	
4,4'-DDD [2C]	9.97117	2.0	0.10	16.6667	ND	59.8	0 - 127	1.30	20	
4,4'-DDE	14.3085	2.0	0.07	16.6667	ND	85.9	0 - 125	2.47	20	
4,4'-DDE [2C]	8.83850	2.0	0.07	16.6667	ND	53.0	0 - 125	0.846	20	
4,4'-DDT	12.5025	2.0	0.14	16.6667	ND	75.0	0 - 103	2.36	20	
4,4'-DDT [2C]	8.45400	2.0	0.14	16.6667	ND	50.7	0 - 103	0.563	20	
Aldrin	13.3068	1.0	0.08	16.6667	ND	79.8	6 - 104	1.89	20	
Aldrin [2C]	9.58983	1.0	0.08	16.6667	ND	57.5	6 - 104	3.29	20	
alpha-BHC	13.4125	1.0	0.04	16.6667	ND	80.5	0 - 114	1.58	20	
alpha-BHC [2C]	9.80950	1.0	0.04	16.6667	ND	58.9	0 - 114	8.28	20	
alpha-Chlordane	13.4557	1.0	0.04	16.6667	ND	80.7	0 - 110	2.28	20	
alpha-Chlordane [2C]	9.39033	1.0	0.04	16.6667	ND	56.3	0 - 110	1.16	20	
beta-BHC	13.8748	1.0	0.04	16.6667	ND	83.2	0 - 129	1.61	20	
beta-BHC [2C]	9.60683	1.0	0.04	16.6667	ND	57.6	0 - 129	8.34	20	
delta-BHC	10.6422	1.0	0.04	16.6667	ND	63.9	18 - 99	1.86	20	
delta-BHC [2C]	6.90033	1.0	0.04	16.6667	ND	41.4	18 - 99	3.32	20	
Dieldrin	12.6283	2.0	0.05	16.6667	ND	75.8	0 - 124	2.30	20	
Dieldrin [2C]	9.33383	2.0	0.05	16.6667	ND	56.0	0 - 124	1.36	20	
Endosulfan I	12.6030	1.0	0.04	16.6667	ND	75.6	0 - 106	2.42	20	
Endosulfan I [2C]	8.81167	1.0	0.04	16.6667	ND	52.9	0 - 106	0.845	20	
Endosulfan II	13.6038	2.0	0.10	16.6667	ND	81.6	20 - 130	2.39	20	
Endosulfan II [2C]	9.57933	2.0	0.10	16.6667	ND	57.5	20 - 130	1.87	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8D0244 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8D0244-MSD1) - Continued

Source: 1801260-57

Prepared: 4/9/2018 Analyzed: 4/9/2018

Endosulfan sulfate	12.2010	2.0	0.06	16.6667	ND	73.2	24 - 119	1.06	20	
Endosulfan Sulfate [2C]	8.29083	2.0	0.06	16.6667	ND	49.7	24 - 119	1.47	20	
Endrin	13.4075	2.0	0.08	16.6667	ND	80.4	0 - 135	2.36	20	
Endrin [2C]	9.69767	2.0	0.08	16.6667	ND	58.2	0 - 135	0.0447	20	
Endrin aldehyde	14.5327	2.0	0.09	16.6667	ND	87.2	19 - 132	1.16	20	
Endrin aldehyde [2C]	9.74383	2.0	0.09	16.6667	ND	58.5	19 - 132	1.54	20	
Endrin ketone	12.3032	2.0	0.07	16.6667	ND	73.8	7 - 141	2.90	20	
Endrin ketone [2C]	8.90333	2.0	0.07	16.6667	ND	53.4	7 - 141	4.28	20	
gamma-BHC	12.9525	1.0	0.05	16.6667	ND	77.7	0 - 117	1.59	20	
gamma-BHC [2C]	10.1868	1.0	0.05	16.6667	ND	61.1	0 - 117	3.35	20	
gamma-Chlordane	12.9543	1.0	0.04	16.6667	ND	77.7	0 - 156	2.42	20	
gamma-Chlordane [2C]	11.2740	1.0	0.04	16.6667	ND	67.6	0 - 156	2.88	20	
Heptachlor	12.7392	1.0	0.07	16.6667	ND	76.4	3 - 112	2.02	20	
Heptachlor [2C]	8.66367	1.0	0.07	16.6667	ND	52.0	3 - 112	8.47	20	
Heptachlor epoxide	12.7693	1.0	0.04	16.6667	ND	76.6	0 - 118	2.39	20	
Heptachlor epoxide [2C]	8.48017	1.0	0.04	16.6667	ND	50.9	0 - 118	1.04	20	
Methoxychlor	12.7902	5.0	0.10	16.6667	ND	76.7	0 - 161	6.80	20	
Methoxychlor [2C]	9.98583	5.0	0.10	16.6667	ND	59.9	0 - 161	0.755	20	
Surrogate: Decachlorobiphenyl	10.07			16.6667		60.4	15 - 100			
Surrogate: Decachlorobiphenyl [	6.402			16.6667		38.4	15 - 100			
Surrogate: Tetrachloro-m-xylene	10.57			16.6667		63.4	16 - 100			
Surrogate: Tetrachloro-m-xylene	8.225			16.6667		49.4	16 - 100			



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0184 - GCSEMI_PCB/PEST_S

Blank (B8D0184-BLK2)

Prepared: 4/5/2018 Analyzed: 4/6/2018

Aroclor 1016	ND	16	4.6
Aroclor 1221	ND	16	4.6
Aroclor 1232	ND	16	4.6
Aroclor 1242	ND	16	4.6
Aroclor 1248	ND	16	4.6
Aroclor 1254	ND	16	4.6
Aroclor 1260	ND	16	4.6
Aroclor 1262	ND	16	4.6
Aroclor 1268	ND	16	4.6

Surrogate: Decachlorobiphenyl	14.68		16.6667	88.1	14 - 109
Surrogate: Tetrachloro-m-xylene	15.98		16.6667	95.9	18 - 114

LCS (B8D0184-BS2)

Prepared: 4/5/2018 Analyzed: 4/6/2018

Aroclor 1016	153.939	16	4.6	166.667	92.4	67 - 120
Aroclor 1260	161.273	16	4.6	166.667	96.8	75 - 125
<i>Surrogate: Decachlorobiphenyl</i>	<i>14.70</i>			<i>16.6667</i>	<i>88.2</i>	<i>14 - 109</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>15.64</i>			<i>16.6667</i>	<i>93.8</i>	<i>18 - 114</i>

Matrix Spike (B8D0184-MS2)

Source: 1801233-69

Prepared: 4/5/2018 Analyzed: 4/6/2018

Aroclor 1016	104.599	16	4.6	166.667	ND	62.8	18 - 133	
Aroclor 1260	108.167	16	4.6	166.667	ND	64.9	15 - 145	
<i>Surrogate: Decachlorobiphenyl</i>				9.566		16.6667	57.4	14 - 109
<i>Surrogate: Tetrachloro-m-xylene</i>				9.909		16.6667	59.5	18 - 114

Matrix Spike Dup (B8D0184-MSD2)

Source: 1801233-69

Prepared: 4/5/2018 Analyzed: 4/6/2018

Aroclor 1016	109.178	16	4.6	166.667	ND	65.5	18 - 133	4.28	20
Aroclor 1260	107.000	16	4.6	166.667	ND	64.2	15 - 145	1.08	20
Surrogate: Decachlorobiphenyl	9.504			16.6667		57.0	14 - 109		
Surrogate: Tetrachloro-m-xylene	9.863			16.6667		59.2	18 - 114		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8D0186 - GCSEMI_PCB/PEST_S

Blank (B8D0186-BLK2)

Prepared: 4/6/2018 Analyzed: 4/6/2018

Aroclor 1016	ND	16	4.6
Aroclor 1221	ND	16	4.6
Aroclor 1232	ND	16	4.6
Aroclor 1242	ND	16	4.6
Aroclor 1248	ND	16	4.6
Aroclor 1254	ND	16	4.6
Aroclor 1260	ND	16	4.6
Aroclor 1262	ND	16	4.6
Aroclor 1268	ND	16	4.6

Surrogate: Decachlorobiphenyl	15.22		16.6667	91.3	14 - 109
Surrogate: Tetrachloro-m-xylene	14.84		16.6667	89.1	18 - 114

LCS (B8D0186-BS2)

Prepared: 4/6/2018 Analyzed: 4/6/2018

Aroclor 1016	148.796	16	4.6	166.667	89.3	67 - 120
Aroclor 1260	161.529	16	4.6	166.667	96.9	75 - 125

Surrogate: Decachlorobiphenyl	16.17		16.6667	97.0	14 - 109
Surrogate: Tetrachloro-m-xylene	15.40		16.6667	92.4	18 - 114

Matrix Spike (B8D0186-MS2)

Source: 1801359-05

Prepared: 4/6/2018 Analyzed: 4/6/2018

Aroclor 1016	132.558	16	4.6	166.667	ND	79.5	18 - 133
Aroclor 1260	146.471	16	4.6	166.667	ND	87.9	15 - 145

Surrogate: Decachlorobiphenyl	13.16		16.6667	79.0	14 - 109
Surrogate: Tetrachloro-m-xylene	12.84		16.6667	77.1	18 - 114

Matrix Spike Dup (B8D0186-MSD2)

Source: 1801359-05

Prepared: 4/6/2018 Analyzed: 4/6/2018

Aroclor 1016	135.696	16	4.6	166.667	ND	81.4	18 - 133	2.34	20
Aroclor 1260	150.028	16	4.6	166.667	ND	90.0	15 - 145	2.40	20

Surrogate: Decachlorobiphenyl	13.27		16.6667	79.6	14 - 109
Surrogate: Tetrachloro-m-xylene	13.03		16.6667	78.2	18 - 114



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 04/10/2018

Notes and Definitions

R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

6.0

92nd St 35

9211/2004 ST

Los Angeles, CA

MALVEY

☒ THOMPSON

Laboratory:

ATC

LAUSD 4524 SOIL PROFILE

TAT: NORM- RUSH

[illegible]

NOTES:

Date/Time:

Relinquished By:

Date/Time: 3/28/18

Acquainted By:

Date/Time:

Received By:

Date/Time: 3/26/15

Received By:

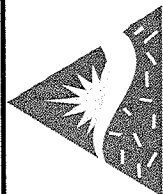
Page 123 of 126

PINNACLE ENVIRONMENTAL TECHNOLOGIES

2 Santa Maria
Foothill Ranch, CA 92610

TEL: (949) 470-3691
FAX: (949) 595-0459

CHAIN OF CUSTODY RECORD



Site: 92nd St & S Project Manager: ☐ MALVEY ☒ THOMPSON

Address: 9211 Grape St. Sampled By: ☐ MALVEY ☒ THOMPSON

Los Angeles CA Laboratory: ATL Page 2 of 4

PINNACLE SAMPLE ID	LABORATORY ID	Sample Time	Sample Date	J=Jar T=Tube V=VOA	EPA 5035 (EnCore)	TPH Full Scan EPA 8015M	VOC EPA 8260B	SVOC EPA 8270C	PCB's EPA 8082	Organo- chlorine Pesticides EPA 8081A	Organo- phosphorous Pesticides EPA 8141A	Chlorinated Herbicides EPA 8151A	Arsenic EPA 6020B	THC EPA 6010B/7170A	Hexavalent Chromium EPA 7199
PB-25-30"	1801260-21	1000	3/28/18	402 J						X			X	X	
PB-26-6"	-22	1010													
PB-26-18"	-23	1020													
PB-26-30"	-24	1025													
PB-35-6"	-25	1030													
PB-35-18"	-26	1040													
PB-35-30"	-27	1045													
PB-37-6"	-28	1055													
PB-37-18"	-29	1100													
PB-37-30"	-30	1105													
PB-36-6"	-31	1115													
PB-36-18"	-32	1120													
PB-36-30"	-33	1125													
PB-38-6"	-34	1135													
PB-38-18"	-35	1140													
PB-38-30"	-36	1145													
PB-40-6"	-37	1155													
PB-40-18"	-38	1200													
PB-40-30"	-39	1205													
PB-34-6"	-40	1215													

NOTES:

Date/Time:

Relinquished By:

Date/Time: 3/28/18

Relinquished By:

Date/Time:

Received By:

Date/Time: 3/28/18

Received By:

CHAIN OF CUSTODY RECORD



Site: 92nd St. E.S. Project Manager: ☐ MALVEY ☒ THOMPSON LAUSD 4524 SOIL PROFILE

Address: 9211 Grace St. Sampled By: ☐ MALVEY ☒ THOMPSON TAT NORM - RUSH

Los Angeles, CA Laboratory: ATL Page 3 of 4

PINNACLE SAMPLE ID	LABORATORY ID	Sample Time	Sample Date	J=Jar T=Tube V=VOA	EPA 5035 (EnCore)	TPH Full Scan EPA 8015M	VOC EPA 8260B	SVOC EPA 8270C	PCB's EPA 8082	Organo- chlorine Pesticides EPA 8081A	Organo- phosphorous Pesticides EPA 8141A	Chlorinated Herbicides EPA 8151A	Arsenic EPA 6020B	Heavy Metals EPA 6010B	Hexavalent Chromium EPA 7199
PA-34-18"	1801260-41	1220	3/28/18	40025						X			X	X	
PA-34-30"	-42	1225													
PA-33-6"	-43	1230													
PA-33-18"	-44	1235													
PA-33-30"	-45	1240													
PA-39-6"	-46	1250													
PA-39-18"	-47	1255													
PA-39-30"	-48	1300													
PA-43-6"	-49	1313													
PA-43-18"	-50	1316													
PA-43-30"	-51	1320													
PA-41-6"	-52	1325													
PA-41-18"	-53	1330													
PA-41-30"	-54	1335													
PA-42-6"	-55	1341													
PA-42-18"	-56	1344													
PA-42-30"	-57	1347													
PA-44-6"	-58	1353													
PA-44-18"	-59	1357													
PA-44-30"	-60	1400													

Relinquished By: [Signature] Date/Time: 3/28/18 Relinquished By: _____ Date/Time: _____

Received By: MTR Date/Time: 3/28/18 1648 Received By: _____ Date/Time: _____

NOTES:

Los Angeles, CA

Laboratory:

TAT: NORM - RUSH

Page 4 of 4

Page 126 of 126

FAX: (949) 595-0459

APPENDIX C

LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION FOR STEP-OUT SOIL SAMPLES



May 29, 2018

Keith Thompson
Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610
Tel: (949) 470-3691
Fax: (949) 887-8247

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1801894
Client Reference : 92nd St. ES

Enclosed are the results for sample(s) received on May 19, 2018 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "ER", with a small "E" written below the main signature.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 05/29/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PB-48-6"	1801894-01	Soil	5/19/18 9:35	5/19/18 12:23
PB-11-A-6"	1801894-04	Soil	5/19/18 8:30	5/19/18 12:23
PB-11-B-6"	1801894-07	Soil	5/19/18 8:45	5/19/18 12:23
PB-11-C-6"	1801894-10	Soil	5/19/18 9:05	5/19/18 12:23
PB-11-D-6"	1801894-13	Soil	5/19/18 9:20	5/19/18 12:23
PB-27-A-6"	1801894-16	Soil	5/19/18 9:35	5/19/18 12:23
PB-27-B-6"	1801894-19	Soil	5/19/18 9:50	5/19/18 12:23
PB-27-C-6"	1801894-22	Soil	5/19/18 10:05	5/19/18 12:23
PB-27-D-6"	1801894-25	Soil	5/19/18 10:20	5/19/18 12:23
PB-34-A-6"	1801894-28	Soil	5/19/18 10:35	5/19/18 12:23
PB-34-B-6"	1801894-31	Soil	5/19/18 10:50	5/19/18 12:23
PB-34-C-6"	1801894-34	Soil	5/19/18 11:05	5/19/18 12:23
PB-34-D-6"	1801894-37	Soil	5/19/18 11:20	5/19/18 12:23



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-48-6"

Lab ID: 1801894-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.7	1.0	1	B8E0719	05/23/2018	05/24/18 11:00	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.4	1.0	20	B8E0650	05/21/2018	05/22/18 11:41	D1

Gasoline Range Organics by EPA 8015B (Modified) (5035)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	0.99	1	B8E0626	05/21/2018	05/21/18 21:01	
Surrogate: 4-Bromofluorobenzene	106 %	57 - 144		B8E0626	05/21/2018	05/21/18 21:01	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8E0735	05/23/2018	05/23/18 15:47	
ORO	ND	10	1	B8E0735	05/23/2018	05/23/18 15:47	
Surrogate: p-Terphenyl	114 %	58 - 172		B8E0735	05/23/2018	05/23/18 15:47	

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,1,1-Trichloroethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,1,2,2-Tetrachloroethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,1,2-Trichloroethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,1-Dichloroethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,1-Dichloroethene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,1-Dichloropropene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,2,3-Trichloropropane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,2,3-Trichlorobenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-48-6"

Lab ID: 1801894-01

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,2,4-Trimethylbenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,2-Dibromo-3-chloropropane	ND	10	1	B8E0619	05/21/2018	05/21/18 10:59	
1,2-Dibromoethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,2-Dichlorobenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,2-Dichloroethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,2-Dichloropropane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,3,5-Trimethylbenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,3-Dichlorobenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,3-Dichloropropane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
1,4-Dichlorobenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
2,2-Dichloropropane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
2-Chlorotoluene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
4-Chlorotoluene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
4-Isopropyltoluene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Benzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Bromobenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Bromochloromethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Bromodichloromethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Bromoform	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Bromomethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Carbon disulfide	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Carbon tetrachloride	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Chlorobenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Chloroethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Chloroform	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Chloromethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
cis-1,2-Dichloroethene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
cis-1,3-Dichloropropene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Di-isopropyl ether	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Dibromochloromethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Dibromomethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Dichlorodifluoromethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Ethyl Acetate	ND	51	1	B8E0619	05/21/2018	05/21/18 10:59	
Ethyl Ether	ND	51	1	B8E0619	05/21/2018	05/21/18 10:59	
Ethyl tert-butyl ether	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Ethylbenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-48-6"

Lab ID: 1801894-01

Volatile Organic Compounds by EPA 5035/EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Freon-113	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Hexachlorobutadiene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Isopropylbenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
m,p-Xylene	ND	10	1	B8E0619	05/21/2018	05/21/18 10:59	
Methylene chloride	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
MTBE	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
n-Butylbenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
n-Propylbenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Naphthalene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
o-Xylene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
sec-Butylbenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Styrene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
tert-Amyl methyl ether	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
tert-Butanol	ND	100	1	B8E0619	05/21/2018	05/21/18 10:59	
tert-Butylbenzene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Tetrachloroethene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Toluene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
trans-1,2-Dichloroethene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
trans-1,3-Dichloropropene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Trichloroethene	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Trichlorofluoromethane	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
Vinyl acetate	ND	51	1	B8E0619	05/21/2018	05/21/18 10:59	
Vinyl chloride	ND	5.1	1	B8E0619	05/21/2018	05/21/18 10:59	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>121 %</i>	<i>58 - 144</i>		B8E0619	05/21/2018	<i>05/21/18 10:59</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>97.6 %</i>	<i>60 - 137</i>		B8E0619	05/21/2018	<i>05/21/18 10:59</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>127 %</i>	<i>70 - 131</i>		B8E0619	05/21/2018	<i>05/21/18 10:59</i>	
<i>Surrogate: Toluene-d8</i>	<i>99.0 %</i>	<i>79 - 131</i>		B8E0619	05/21/2018	<i>05/21/18 10:59</i>	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-11-A-6"

Lab ID: 1801894-04

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	20	1.0	20	B8E0650	05/21/2018	05/22/18 11:46	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-11-B-6"

Lab ID: 1801894-07

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	53	1.0	20	B8E0650	05/21/2018	05/22/18 11:46	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-11-C-6"

Lab ID: 1801894-10

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	13	1.0	20	B8E0650	05/21/2018	05/22/18 11:51	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-11-D-6"

Lab ID: 1801894-13

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	22	1.0	20	B8E0650	05/21/2018	05/22/18 11:52	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-27-A-6"

Lab ID: 1801894-16

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	16	1.0	20	B8E0650	05/21/2018	05/22/18 11:52	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-27-B-6"

Lab ID: 1801894-19

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	20	B8E0650	05/21/2018	05/22/18 11:53	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-27-C-6"

Lab ID: 1801894-22

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	21	1.0	20	B8E0650	05/21/2018	05/22/18 11:54	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-27-D-6"

Lab ID: 1801894-25

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	20	B8E0650	05/21/2018	05/22/18 11:55	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-34-A-6"

Lab ID: 1801894-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	10	1.0	1	B8E0719	05/23/2018	05/24/18 11:01	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.4	1.0	20	B8E0650	05/21/2018	05/22/18 11:56	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-34-B-6"

Lab ID: 1801894-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	7.2	1.0	1	B8E0719	05/23/2018	05/24/18 11:03	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	20	B8E0650	05/21/2018	05/22/18 11:57	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-34-C-6"

Lab ID: 1801894-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	9.2	1.0	1	B8E0719	05/23/2018	05/24/18 11:04	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	20	B8E0650	05/21/2018	05/22/18 11:57	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Client Sample ID PB-34-D-6"

Lab ID: 1801894-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	33	1.0	1	B8E0719	05/23/2018	05/24/18 11:05	

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	20	B8E0650	05/21/2018	05/22/18 11:58	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8E0719 - EPA 3050B_S

Blank (B8E0719-BLK1)

Prepared: 5/23/2018 Analyzed: 5/24/2018

Lead ND 1.0 0.18

LCS (B8E0719-BS1)

Prepared: 5/23/2018 Analyzed: 5/24/2018

Lead 45.8597 1.0 0.18 50.0000 91.7 80 - 120

Duplicate (B8E0719-DUP2)

Source: 1801895-04

Prepared: 5/23/2018 Analyzed: 5/24/2018

Lead 17671.2 20 3.6 54458.5 102 20 R

Matrix Spike (B8E0719-MS1)

Source: 1801896-10

Prepared: 5/23/2018 Analyzed: 5/24/2018

Lead 232.749 1.0 0.18 124.378 111.026 97.9 36 - 121

Matrix Spike Dup (B8E0719-MSD1)

Source: 1801896-10

Prepared: 5/23/2018 Analyzed: 5/24/2018

Lead 208.809 1.0 0.18 124.378 111.026 78.6 36 - 121 10.8 20



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8E0650 - EPA 3050B MS_S

Blank (B8E0650-BLK1)

Prepared: 5/21/2018 Analyzed: 5/22/2018

Arsenic	ND	0.25	0.01
---------	----	------	------

LCS (B8E0650-BS1)

Prepared: 5/21/2018 Analyzed: 5/22/2018

Arsenic	3.78841	0.25	0.01	5.00000	75.8	70 - 130
---------	---------	------	------	---------	------	----------

Matrix Spike (B8E0650-MS1)

Source: 1801894-01

Prepared: 5/21/2018 Analyzed: 5/22/2018

Arsenic	9.64975	1.0	0.04	5.00000	5.37857	85.4	75 - 125
---------	---------	-----	------	---------	---------	------	----------

Matrix Spike Dup (B8E0650-MSD1)

Source: 1801894-01

Prepared: 5/21/2018 Analyzed: 5/22/2018

Arsenic	10.2456	1.0	0.04	5.00000	5.37857	97.3	75 - 125	5.99	20
---------	---------	-----	------	---------	---------	------	----------	------	----

Post Spike (B8E0650-PS1)

Source: 1801894-01

Prepared: 5/21/2018 Analyzed: 5/22/2018

Arsenic	6.99425			5.00000	1.07571	118	75 - 125
---------	---------	--	--	---------	---------	-----	----------



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Gasoline Range Organics by EPA 8015B (Modified) (5035) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8E0626 - GCVOA_S

Blank (B8E0626-BLK1)

Prepared: 5/21/2018 Analyzed: 5/21/2018

Gasoline Range Organics	ND	1.0	0.20						
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.1585</i>			<i>0.200000</i>		<i>79.2</i>	<i>57 - 144</i>		

LCS (B8E0626-BS1)

Prepared: 5/21/2018 Analyzed: 5/21/2018

Gasoline Range Organics	3.79100	1.0	0.20	5.00000		75.8	70 - 130		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.2005</i>			<i>0.200000</i>		<i>100</i>	<i>57 - 144</i>		

Matrix Spike (B8E0626-MS1)

Source: 1801893-01

Prepared: 5/21/2018 Analyzed: 5/21/2018

Gasoline Range Organics	3.67900	1.0	0.20	5.00000	ND	73.6	28 - 118		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.2021</i>			<i>0.200000</i>		<i>101</i>	<i>57 - 144</i>		

Matrix Spike Dup (B8E0626-MSD1)

Source: 1801893-01

Prepared: 5/21/2018 Analyzed: 5/21/2018

Gasoline Range Organics	3.34600	1.0	0.20	5.00000	ND	66.9	28 - 118	9.48	20
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.1823</i>			<i>0.200000</i>		<i>91.2</i>	<i>57 - 144</i>		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8E0735 - GCSEMI_DRO_S

Blank (B8E0735-BLK1)

Prepared: 5/23/2018 Analyzed: 5/23/2018

DRO	ND	10	10
ORO	ND	10	10

Surrogate: <i>p</i> -Terphenyl	92.51		80.0000	116	58 - 172
--------------------------------	-------	--	---------	-----	----------

LCS (B8E0735-BS1)

Prepared: 5/23/2018 Analyzed: 5/23/2018

DRO	996.960	10	10	1000.00	99.7	71 - 165
Surrogate: <i>p</i> -Terphenyl	95.21			80.0000	119	58 - 172

Matrix Spike (B8E0735-MS1)

Source: 1801894-01

Prepared: 5/23/2018 Analyzed: 5/23/2018

DRO	970.180	10	10	1000.00	ND	97.0	61 - 171
Surrogate: <i>p</i> -Terphenyl	90.61			80.0000		113	58 - 172

Matrix Spike Dup (B8E0735-MSD1)

Source: 1801894-01

Prepared: 5/23/2018 Analyzed: 5/23/2018

DRO	983,500	10	10	1000.00	ND	98.4	61 - 171	1.36	20
Surrogate: <i>p</i> -Terphenyl	85.45			80.0000		107	58 - 172		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8E0619 - MSVOA_S

Blank (B8E0619-BLK1)

Prepared: 5/21/2018 Analyzed: 5/21/2018

1,1,1,2-Tetrachloroethane	ND	5.0	0.96
1,1,1-Trichloroethane	ND	5.0	1.1
1,1,2,2-Tetrachloroethane	ND	5.0	0.62
1,1,2-Trichloroethane	ND	5.0	1.6
1,1-Dichloroethane	ND	5.0	0.81
1,1-Dichloroethene	ND	5.0	2.6
1,1-Dichloropropene	ND	5.0	2.3
1,2,3-Trichloropropane	ND	5.0	0.54
1,2,3-Trichlorobenzene	ND	5.0	1.2
1,2,4-Trichlorobenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.5
1,2-Dibromo-3-chloropropane	ND	10	1.6
1,2-Dibromoethane	ND	5.0	3.2
1,2-Dichlorobenzene	ND	5.0	1.1
1,2-Dichloroethane	ND	5.0	1.2
1,2-Dichloropropane	ND	5.0	1.8
1,3,5-Trimethylbenzene	ND	5.0	1.7
1,3-Dichlorobenzene	ND	5.0	1.3
1,3-Dichloropropane	ND	5.0	1.1
1,4-Dichlorobenzene	ND	5.0	1.2
2,2-Dichloropropane	ND	5.0	1.2
2-Chlorotoluene	ND	5.0	1.6
4-Chlorotoluene	ND	5.0	1.5
4-Isopropyltoluene	ND	5.0	2.3
Benzene	ND	5.0	0.64
Bromobenzene	ND	5.0	1.1
Bromochloromethane	ND	5.0	0.64
Bromodichloromethane	ND	5.0	1.2
Bromoform	ND	5.0	0.80
Bromomethane	ND	5.0	2.5
Carbon disulfide	ND	5.0	3.5
Carbon tetrachloride	ND	5.0	1.2
Chlorobenzene	ND	5.0	1.0
Chloroethane	ND	5.0	1.1
Chloroform	ND	5.0	0.82
Chloromethane	ND	5.0	1.4
cis-1,2-Dichloroethene	ND	5.0	0.67
cis-1,3-Dichloropropene	ND	5.0	1.9
Di-isopropyl ether	ND	5.0	0.55
Dibromochloromethane	ND	5.0	1.0
Dibromomethane	ND	5.0	1.6



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

Batch B8E0619 - MSVOA_S (continued)

Blank (B8E0619-BLK1) - Continued

Prepared: 5/21/2018 Analyzed: 5/21/2018

Dichlorodifluoromethane	ND	5.0	2.2
Ethyl Acetate	ND	50	8.1
Ethyl Ether	ND	50	6.1
Ethyl tert-butyl ether	ND	5.0	0.67
Ethylbenzene	ND	5.0	0.91
Freon-113	ND	5.0	2.8
Hexachlorobutadiene	ND	5.0	2.5
Isopropylbenzene	ND	5.0	1.8
m,p-Xylene	ND	10	1.5
Methylene chloride	ND	5.0	2.3
MTBE	ND	5.0	0.63
n-Butylbenzene	ND	5.0	2.4
n-Propylbenzene	ND	5.0	2.2
Naphthalene	ND	5.0	0.97
o-Xylene	ND	5.0	0.87
sec-Butylbenzene	ND	5.0	2.3
Styrene	ND	5.0	1.5
tert-Amyl methyl ether	ND	5.0	0.59
tert-Butanol	ND	100	19
tert-Butylbenzene	ND	5.0	2.0
Tetrachloroethene	ND	5.0	1.6
Toluene	ND	5.0	0.94
trans-1,2-Dichloroethene	ND	5.0	0.59
trans-1,3-Dichloropropene	ND	5.0	2.1
Trichloroethene	ND	5.0	3.1
Trichlorofluoromethane	ND	5.0	1.4
Vinyl acetate	ND	50	9.8
Vinyl chloride	ND	5.0	1.7

Surrogate: 1,2-Dichloroethane-d4	43.70		50.0000	87.4	58 - 144
Surrogate: 4-Bromofluorobenzene	48.42		50.0000	96.8	60 - 137
Surrogate: Dibromofluoromethane	55.88		50.0000	112	70 - 131
Surrogate: Toluene-d8	49.48		50.0000	99.0	79 - 131

LCS (B8E0619-BS1)

Prepared: 5/21/2018 Analyzed: 5/21/2018

1,1,1,2-Tetrachloroethane	47.2600	5.0	0.96	50.0000	94.5	82 - 113
1,1,1-Trichloroethane	51.0000	5.0	1.1	50.0000	102	75 - 123
1,1,2,2-Tetrachloroethane	41.9200	5.0	0.62	50.0000	83.8	70 - 115
1,1,2-Trichloroethane	43.3800	5.0	1.6	50.0000	86.8	84 - 113
1,1-Dichloroethane	51.0700	5.0	0.81	50.0000	102	75 - 119
1,1-Dichloroethene	51.9500	5.0	2.6	50.0000	104	65 - 116
1,1-Dichloropropene	55.9100	5.0	2.3	50.0000	112	80 - 117



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 05/29/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8E0619 - MSVOA_S (continued)

LCS (B8E0619-BS1) - Continued

Prepared: 5/21/2018 Analyzed: 5/21/2018

1,2,3-Trichloropropane	41.7200	5.0	0.54	50.0000		83.4	75 - 113		
1,2,3-Trichlorobenzene	49.9500	5.0	1.2	50.0000		99.9	80 - 119		
1,2,4-Trichlorobenzene	54.1700	5.0	1.1	50.0000		108	83 - 124		
1,2,4-Trimethylbenzene	53.5200	5.0	1.5	50.0000		107	87 - 114		
1,2-Dibromo-3-chloropropane	44.3700	10	1.6	50.0000		88.7	70 - 130		
1,2-Dibromoethane	42.0400	5.0	3.2	50.0000		84.1	81 - 117		
1,2-Dichlorobenzene	47.4900	5.0	1.1	50.0000		95.0	84 - 113		
1,2-Dichloroethane	43.2000	5.0	1.2	50.0000		86.4	77 - 126		
1,2-Dichloropropane	49.0900	5.0	1.8	50.0000		98.2	81 - 115		
1,3,5-Trimethylbenzene	54.8900	5.0	1.7	50.0000		110	85 - 115		
1,3-Dichlorobenzene	49.1400	5.0	1.3	50.0000		98.3	84 - 112		
1,3-Dichloropropane	45.9200	5.0	1.1	50.0000		91.8	84 - 110		
1,4-Dichlorobenzene	48.3200	5.0	1.2	50.0000		96.6	86 - 112		
2,2-Dichloropropane	58.9500	5.0	1.2	50.0000		118	59 - 139		
2-Chlorotoluene	51.6500	5.0	1.6	50.0000		103	82 - 111		
4-Chlorotoluene	51.0000	5.0	1.5	50.0000		102	81 - 113		
4-Isopropyltoluene	56.5700	5.0	2.3	50.0000		113	88 - 118		
Benzene	98.0600	5.0	0.64	100.000		98.1	83 - 112		
Bromobenzene	46.1100	5.0	1.1	50.0000		92.2	80 - 108		
Bromochloromethane	45.1000	5.0	0.64	50.0000		90.2	74 - 117		
Bromodichloromethane	46.5100	5.0	1.2	50.0000		93.0	83 - 112		
Bromoform	42.3100	5.0	0.80	50.0000		84.6	74 - 116		
Bromomethane	48.4200	5.0	2.5	50.0000		96.8	55 - 149		
Carbon disulfide	56.7800	5.0	3.5	50.0000		114	65 - 131		
Carbon tetrachloride	53.4300	5.0	1.2	50.0000		107	72 - 128		
Chlorobenzene	48.9600	5.0	1.0	50.0000		97.9	85 - 109		
Chloroethane	45.1700	5.0	1.1	50.0000		90.3	53 - 143		
Chloroform	48.8100	5.0	0.82	50.0000		97.6	79 - 117		
Chloromethane	42.2900	5.0	1.4	50.0000		84.6	50 - 134		
cis-1,2-Dichloroethene	49.5800	5.0	0.67	50.0000		99.2	75 - 116		
cis-1,3-Dichloropropene	48.9400	5.0	1.9	50.0000		97.9	80 - 118		
Di-isopropyl ether	48.4800	5.0	0.55	50.0000		97.0	72 - 123		
Dibromochloromethane	44.7200	5.0	1.0	50.0000		89.4	79 - 110		
Dibromomethane	43.9200	5.0	1.6	50.0000		87.8	82 - 114		
Dichlorodifluoromethane	35.7600	5.0	2.2	50.0000		71.5	42 - 144		
Ethyl Acetate	407.250	50	8.1	500.000		81.4	70 - 134		
Ethyl Ether	439.450	50	6.1	500.000		87.9	63 - 119		
Ethyl tert-butyl ether	47.9500	5.0	0.67	50.0000		95.9	61 - 136		
Ethylbenzene	105.340	5.0	0.91	100.000		105	84 - 119		
Freon-113	55.3400	5.0	2.8	50.0000		111	71 - 126		
Hexachlorobutadiene	58.1300	5.0	2.5	50.0000		116	78 - 133		
Isopropylbenzene	56.2000	5.0	1.8	50.0000		112	73 - 123		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8E0619 - MSVOA_S (continued)

LCS (B8E0619-BS1) - Continued

Prepared: 5/21/2018 Analyzed: 5/21/2018

m,p-Xylene	110.700	10	1.5	100.000		111	86 - 121		
Methylene chloride	47.8000	5.0	2.3	50.0000		95.6	47 - 137		
MTBE	45.2100	5.0	0.63	50.0000		90.4	67 - 124		
n-Butylbenzene	58.9000	5.0	2.4	50.0000		118	89 - 125		
n-Propylbenzene	55.2300	5.0	2.2	50.0000		110	81 - 116		
Naphthalene	46.6600	5.0	0.97	50.0000		93.3	70 - 130		
o-Xylene	106.040	5.0	0.87	100.000		106	84 - 114		
sec-Butylbenzene	56.8800	5.0	2.3	50.0000		114	84 - 118		
Styrene	49.9800	5.0	1.5	50.0000		100	82 - 117		
tert-Amyl methyl ether	44.8100	5.0	0.59	50.0000		89.6	60 - 129		
tert-Butanol	213.970	100	19	250.000		85.6	22 - 150		
tert-Butylbenzene	55.3200	5.0	2.0	50.0000		111	83 - 112		
Tetrachloroethene	55.0900	5.0	1.6	50.0000		110	75 - 117		
Toluene	98.5400	5.0	0.94	100.000		98.5	85 - 122		
trans-1,2-Dichloroethene	50.1400	5.0	0.59	50.0000		100	70 - 116		
trans-1,3-Dichloropropene	45.0400	5.0	2.1	50.0000		90.1	76 - 127		
Trichloroethene	52.4000	5.0	3.1	50.0000		105	79 - 116		
Trichlorofluoromethane	49.6700	5.0	1.4	50.0000		99.3	63 - 135		
Vinyl acetate	407.870	50	9.8	500.000		81.6	69 - 136		
Vinyl chloride	44.9500	5.0	1.7	50.0000		89.9	53 - 136		
Surrogate: 1,2-Dichloroethane-d4	41.99			50.0000		84.0	58 - 144		
Surrogate: 4-Bromofluorobenzene	51.39			50.0000		103	60 - 137		
Surrogate: Dibromofluoromethane	50.47			50.0000		101	70 - 131		
Surrogate: Toluene-d8	50.44			50.0000		101	79 - 131		

Duplicate (B8E0619-DUP1)

Source: 1801881-22

Prepared: 5/21/2018 Analyzed: 5/21/2018

1,1,1,2-Tetrachloroethane	ND	5.0	0.96	ND			20
1,1,1-Trichloroethane	ND	5.0	1.1	ND			20
1,1,2,2-Tetrachloroethane	ND	5.0	0.62	ND			20
1,1,2-Trichloroethane	ND	5.0	1.6	ND			20
1,1-Dichloroethane	ND	5.0	0.81	ND			20
1,1-Dichloroethene	ND	5.0	2.6	ND			20
1,1-Dichloropropene	ND	5.0	2.3	ND			20
1,2,3-Trichloropropane	ND	5.0	0.54	ND			20
1,2,3-Trichlorobenzene	ND	5.0	1.2	ND			20
1,2,4-Trichlorobenzene	ND	5.0	1.1	ND			20
1,2,4-Trimethylbenzene	ND	5.0	1.5	ND			20
1,2-Dibromo-3-chloropropane	ND	10	1.6	ND			20
1,2-Dibromoethane	ND	5.0	3.2	ND			20
1,2-Dichlorobenzene	ND	5.0	1.1	ND			20
1,2-Dichloroethane	ND	5.0	1.2	ND			20



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8E0619 - MSVOA_S (continued)

Duplicate (B8E0619-DUP1) - Continued

Source: 1801881-22

Prepared: 5/21/2018 Analyzed: 5/21/2018

1,2-Dichloropropane	ND	5.0	1.8		ND				20	
1,3,5-Trimethylbenzene	ND	5.0	1.7		ND				20	
1,3-Dichlorobenzene	ND	5.0	1.3		ND				20	
1,3-Dichloropropane	ND	5.0	1.1		ND				20	
1,4-Dichlorobenzene	ND	5.0	1.2		ND				20	
2,2-Dichloropropane	ND	5.0	1.2		ND				20	
2-Chlorotoluene	ND	5.0	1.6		ND				20	
4-Chlorotoluene	ND	5.0	1.5		ND				20	
4-Isopropyltoluene	ND	5.0	2.3		ND				20	
Benzene	ND	5.0	0.64		ND				20	
Bromobenzene	ND	5.0	1.1		ND				20	
Bromochloromethane	ND	5.0	0.64		ND				20	
Bromodichloromethane	ND	5.0	1.2		ND				20	
Bromoform	ND	5.0	0.80		ND				20	
Bromomethane	ND	5.0	2.5		ND				20	
Carbon disulfide	ND	5.0	3.5		ND				20	
Carbon tetrachloride	ND	5.0	1.2		ND				20	
Chlorobenzene	ND	5.0	1.0		ND				20	
Chloroethane	ND	5.0	1.1		ND				20	
Chloroform	ND	5.0	0.82		ND				20	
Chloromethane	ND	5.0	1.4		ND				20	
cis-1,2-Dichloroethene	ND	5.0	0.67		ND				20	
cis-1,3-Dichloropropene	ND	5.0	1.9		ND				20	
Di-isopropyl ether	ND	5.0	0.55		ND				20	
Dibromochloromethane	ND	5.0	1.0		ND				20	
Dibromomethane	ND	5.0	1.6		ND				20	
Dichlorodifluoromethane	ND	5.0	2.2		ND				20	
Ethyl Acetate	ND	50	8.1		ND				20	
Ethyl Ether	ND	50	6.1		ND				20	
Ethyl tert-butyl ether	ND	5.0	0.67		ND				20	
Ethylbenzene	ND	5.0	0.91		ND				20	
Freon-113	ND	5.0	2.8		ND				20	
Hexachlorobutadiene	ND	5.0	2.5		ND				20	
Isopropylbenzene	ND	5.0	1.8		ND				20	
m,p-Xylene	ND	10	1.5		ND				20	
Methylene chloride	ND	5.0	2.3		ND				20	
MTBE	ND	5.0	0.63		ND				20	
n-Butylbenzene	ND	5.0	2.4		ND				20	
n-Propylbenzene	ND	5.0	2.2		ND				20	
Naphthalene	ND	5.0	0.97		ND				20	
o-Xylene	ND	5.0	0.87		ND				20	
sec-Butylbenzene	ND	5.0	2.3		ND				20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8E0619 - MSVOA_S (continued)

Duplicate (B8E0619-DUP1) - Continued

Source: 1801881-22

Prepared: 5/21/2018 Analyzed: 5/21/2018

Styrene	ND	5.0	1.5		ND			20	
tert-Amyl methyl ether	ND	5.0	0.59		ND			20	
tert-Butanol	ND	100	19		ND			20	
tert-Butylbenzene	ND	5.0	2.0		ND			20	
Tetrachloroethene	ND	5.0	1.6		ND			20	
Toluene	ND	5.0	0.94		ND			20	
trans-1,2-Dichloroethene	ND	5.0	0.59		ND			20	
trans-1,3-Dichloropropene	ND	5.0	2.1		ND			20	
Trichloroethene	ND	5.0	3.1		ND			20	
Trichlorofluoromethane	ND	5.0	1.4		ND			20	
Vinyl acetate	ND	50	9.8		ND			20	
Vinyl chloride	ND	5.0	1.7		ND			20	

Surrogate: 1,2-Dichloroethane-d4	54.76			50.0000		110	58 - 144	
Surrogate: 4-Bromofluorobenzene	46.74			50.0000		93.5	60 - 137	
Surrogate: Dibromofluoromethane	64.98			50.0000		130	70 - 131	
Surrogate: Toluene-d8	51.01			50.0000		102	79 - 131	

Matrix Spike (B8E0619-MS1)

Source: 1801893-01

Prepared: 5/21/2018 Analyzed: 5/21/2018

1,1,1,2-Tetrachloroethane	44.3500	5.0	0.96	50.0000	ND	88.7	41 - 125	
1,1,1-Trichloroethane	46.7000	5.0	1.1	50.0000	ND	93.4	49 - 131	
1,1,2,2-Tetrachloroethane	42.7800	5.0	0.62	50.0000	ND	85.6	28 - 134	
1,1,2-Trichloroethane	43.2400	5.0	1.6	50.0000	ND	86.5	44 - 127	
1,1-Dichloroethane	48.0500	5.0	0.81	50.0000	ND	96.1	54 - 119	
1,1-Dichloroethene	46.8500	5.0	2.6	50.0000	ND	93.7	48 - 123	
1,1-Dichloropropene	49.2800	5.0	2.3	50.0000	ND	98.6	47 - 131	
1,2,3-Trichloropropane	42.7800	5.0	0.54	50.0000	ND	85.6	42 - 124	
1,2,3-Trichlorobenzene	46.0500	5.0	1.2	50.0000	ND	92.1	0 - 131	
1,2,4-Trichlorobenzene	48.3300	5.0	1.1	50.0000	ND	96.7	7 - 131	
1,2,4-Trimethylbenzene	46.8200	5.0	1.5	50.0000	ND	93.6	26 - 135	
1,2-Dibromo-3-chloropropane	45.5300	10	1.6	50.0000	ND	91.1	31 - 139	
1,2-Dibromoethane	43.5900	5.0	3.2	50.0000	ND	87.2	41 - 128	
1,2-Dichlorobenzene	44.2200	5.0	1.1	50.0000	ND	88.4	21 - 129	
1,2-Dichloroethane	43.3700	5.0	1.2	50.0000	ND	86.7	46 - 128	
1,2-Dichloropropane	46.4700	5.0	1.8	50.0000	ND	92.9	52 - 118	
1,3,5-Trimethylbenzene	47.8100	5.0	1.7	50.0000	ND	95.6	26 - 136	
1,3-Dichlorobenzene	44.1000	5.0	1.3	50.0000	ND	88.2	22 - 129	
1,3-Dichloropropane	45.3900	5.0	1.1	50.0000	ND	90.8	47 - 120	
1,4-Dichlorobenzene	44.1000	5.0	1.2	50.0000	ND	88.2	22 - 130	
2,2-Dichloropropane	53.0900	5.0	1.2	50.0000	ND	106	38 - 139	
2-Chlorotoluene	45.8600	5.0	1.6	50.0000	ND	91.7	29 - 130	
4-Chlorotoluene	45.3200	5.0	1.5	50.0000	ND	90.6	28 - 130	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8E0619 - MSVOA_S (continued)

Matrix Spike (B8E0619-MS1) - Continued

Source: 1801893-01

Prepared: 5/21/2018 Analyzed: 5/21/2018

4-Isopropyltoluene	48.7800	5.0	2.3	50.0000	ND	97.6	23 - 141		
Benzene	89.3400	5.0	0.64	100.000	ND	89.3	52 - 119		
Bromobenzene	42.4800	5.0	1.1	50.0000	ND	85.0	33 - 122		
Bromochloromethane	45.4500	5.0	0.64	50.0000	ND	90.9	51 - 116		
Bromodichloromethane	44.7400	5.0	1.2	50.0000	ND	89.5	47 - 120		
Bromoform	43.2000	5.0	0.80	50.0000	ND	86.4	35 - 127		
Bromomethane	47.9100	5.0	2.5	50.0000	ND	95.8	34 - 143		
Carbon disulfide	49.2600	5.0	3.5	50.0000	ND	98.5	42 - 137		
Carbon tetrachloride	47.7300	5.0	1.2	50.0000	ND	95.5	44 - 138		
Chlorobenzene	44.7900	5.0	1.0	50.0000	ND	89.6	38 - 124		
Chloroethane	41.3600	5.0	1.1	50.0000	ND	82.7	37 - 140		
Chloroform	47.3300	5.0	0.82	50.0000	ND	94.7	54 - 118		
Chloromethane	38.9800	5.0	1.4	50.0000	ND	78.0	32 - 139		
cis-1,2-Dichloroethene	46.6100	5.0	0.67	50.0000	ND	93.2	51 - 116		
cis-1,3-Dichloropropene	46.9500	5.0	1.9	50.0000	ND	93.9	41 - 126		
Di-isopropyl ether	47.8300	5.0	0.55	50.0000	ND	95.7	50 - 122		
Dibromochloromethane	43.7300	5.0	1.0	50.0000	ND	87.5	42 - 118		
Dibromomethane	43.9900	5.0	1.6	50.0000	ND	88.0	46 - 122		
Dichlorodifluoromethane	33.4300	5.0	2.2	50.0000	ND	66.9	31 - 146		
Ethyl Acetate	457.490	50	8.1	500.000	ND	91.5	17 - 148		
Ethyl Ether	471.670	50	6.1	500.000	ND	94.3	42 - 120		
Ethyl tert-butyl ether	48.8000	5.0	0.67	50.0000	ND	97.6	41 - 133		
Ethylbenzene	94.5600	5.0	0.91	100.000	ND	94.6	38 - 136		
Freon-113	50.1700	5.0	2.8	50.0000	ND	100	43 - 139		
Hexachlorobutadiene	48.5900	5.0	2.5	50.0000	ND	97.2	2 - 135		
Isopropylbenzene	48.6300	5.0	1.8	50.0000	ND	97.3	31 - 136		
m,p-Xylene	97.8500	10	1.5	100.000	ND	97.8	36 - 137		
Methylene chloride	46.3200	5.0	2.3	50.0000	ND	92.6	28 - 137		
MTBE	46.8600	5.0	0.63	50.0000	ND	93.7	44 - 126		
n-Butylbenzene	49.4400	5.0	2.4	50.0000	ND	98.9	8 - 154		
n-Propylbenzene	48.0200	5.0	2.2	50.0000	ND	96.0	28 - 135		
Naphthalene	42.3700	5.0	0.97	50.0000	ND	84.7	7 - 136		
o-Xylene	96.0200	5.0	0.87	100.000	ND	96.0	35 - 129		
sec-Butylbenzene	48.8900	5.0	2.3	50.0000	ND	97.8	25 - 138		
Styrene	45.9100	5.0	1.5	50.0000	ND	91.8	33 - 128		
tert-Amyl methyl ether	46.4100	5.0	0.59	50.0000	ND	92.8	41 - 124		
tert-Butanol	221.460	100	19	250.000	ND	88.6	8 - 157		
tert-Butylbenzene	47.5500	5.0	2.0	50.0000	ND	95.1	26 - 134		
Tetrachloroethene	47.7300	5.0	1.6	50.0000	ND	95.5	36 - 130		
Toluene	90.8000	5.0	0.94	100.000	ND	90.8	44 - 136		
trans-1,2-Dichloroethene	46.9900	5.0	0.59	50.0000	ND	94.0	49 - 119		
trans-1,3-Dichloropropene	45.0900	5.0	2.1	50.0000	ND	90.2	33 - 136		



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8E0619 - MSVOA_S (continued)

Matrix Spike (B8E0619-MS1) - Continued

Source: 1801893-01

Prepared: 5/21/2018 Analyzed: 5/21/2018

Trichloroethene	47.0200	5.0	3.1	50.0000	ND	94.0	32 - 147			
Trichlorofluoromethane	45.8000	5.0	1.4	50.0000	ND	91.6	41 - 144			
Vinyl acetate	426.590	50	9.8	500.000	ND	85.3	0 - 146			
Vinyl chloride	41.2500	5.0	1.7	50.0000	ND	82.5	39 - 142			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>43.86</i>			<i>50.0000</i>		<i>87.7</i>	<i>58 - 144</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>52.40</i>			<i>50.0000</i>		<i>105</i>	<i>60 - 137</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>54.90</i>			<i>50.0000</i>		<i>110</i>	<i>70 - 131</i>			
<i>Surrogate: Toluene-d8</i>	<i>51.88</i>			<i>50.0000</i>		<i>104</i>	<i>79 - 131</i>			

Matrix Spike Dup (B8E0619-MSD1)

Source: 1801893-01

Prepared: 5/21/2018 Analyzed: 5/21/2018

1,1,1,2-Tetrachloroethane	41.8800	5.0	0.96	50.0000	ND	83.8	41 - 125	5.73	20	
1,1,1-Trichloroethane	43.9900	5.0	1.1	50.0000	ND	88.0	49 - 131	5.98	20	
1,1,2,2-Tetrachloroethane	40.4900	5.0	0.62	50.0000	ND	81.0	28 - 134	5.50	20	
1,1,2-Trichloroethane	41.0100	5.0	1.6	50.0000	ND	82.0	44 - 127	5.29	20	
1,1-Dichloroethane	45.8700	5.0	0.81	50.0000	ND	91.7	54 - 119	4.64	20	
1,1-Dichloroethene	43.7800	5.0	2.6	50.0000	ND	87.6	48 - 123	6.77	20	
1,1-Dichloropropene	46.5100	5.0	2.3	50.0000	ND	93.0	47 - 131	5.78	20	
1,2,3-Trichloropropane	39.8900	5.0	0.54	50.0000	ND	79.8	42 - 124	6.99	20	
1,2,3-Trichlorobenzene	40.4600	5.0	1.2	50.0000	ND	80.9	0 - 131	12.9	20	
1,2,4-Trichlorobenzene	43.6400	5.0	1.1	50.0000	ND	87.3	7 - 131	10.2	20	
1,2,4-Trimethylbenzene	44.7700	5.0	1.5	50.0000	ND	89.5	26 - 135	4.48	20	
1,2-Dibromo-3-chloropropane	42.7500	10	1.6	50.0000	ND	85.5	31 - 139	6.30	20	
1,2-Dibromoethane	40.3200	5.0	3.2	50.0000	ND	80.6	41 - 128	7.79	20	
1,2-Dichlorobenzene	41.0800	5.0	1.1	50.0000	ND	82.2	21 - 129	7.36	20	
1,2-Dichloroethane	40.6900	5.0	1.2	50.0000	ND	81.4	46 - 128	6.38	20	
1,2-Dichloropropane	44.0200	5.0	1.8	50.0000	ND	88.0	52 - 118	5.41	20	
1,3,5-Trimethylbenzene	45.3500	5.0	1.7	50.0000	ND	90.7	26 - 136	5.28	20	
1,3-Dichlorobenzene	41.3800	5.0	1.3	50.0000	ND	82.8	22 - 129	6.36	20	
1,3-Dichloropropane	42.4500	5.0	1.1	50.0000	ND	84.9	47 - 120	6.69	20	
1,4-Dichlorobenzene	41.2100	5.0	1.2	50.0000	ND	82.4	22 - 130	6.78	20	
2,2-Dichloropropane	50.9600	5.0	1.2	50.0000	ND	102	38 - 139	4.09	20	
2-Chlorotoluene	43.5700	5.0	1.6	50.0000	ND	87.1	29 - 130	5.12	20	
4-Chlorotoluene	42.9100	5.0	1.5	50.0000	ND	85.8	28 - 130	5.46	20	
4-Isopropyltoluene	46.4300	5.0	2.3	50.0000	ND	92.9	23 - 141	4.94	20	
Benzene	85.1000	5.0	0.64	100.000	ND	85.1	52 - 119	4.86	20	
Bromobenzene	40.4100	5.0	1.1	50.0000	ND	80.8	33 - 122	4.99	20	
Bromochloromethane	43.7200	5.0	0.64	50.0000	ND	87.4	51 - 116	3.88	20	
Bromodichloromethane	42.4600	5.0	1.2	50.0000	ND	84.9	47 - 120	5.23	20	
Bromoform	39.8500	5.0	0.80	50.0000	ND	79.7	35 - 127	8.07	20	
Bromomethane	43.5500	5.0	2.5	50.0000	ND	87.1	34 - 143	9.53	20	
Carbon disulfide	44.9000	5.0	3.5	50.0000	ND	89.8	42 - 137	9.26	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 05/29/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-----------------	-----	--------------	-------

Batch B8E0619 - MSVOA_S (continued)

Matrix Spike Dup (B8E0619-MSD1) - Continued

Source: 1801893-01

Prepared: 5/21/2018 Analyzed: 5/21/2018

Carbon tetrachloride	45.1500	5.0	1.2	50.0000	ND	90.3	44 - 138	5.56	20
Chlorobenzene	42.0900	5.0	1.0	50.0000	ND	84.2	38 - 124	6.22	20
Chloroethane	39.1700	5.0	1.1	50.0000	ND	78.3	37 - 140	5.44	20
Chloroform	44.7700	5.0	0.82	50.0000	ND	89.5	54 - 118	5.56	20
Chloromethane	36.5800	5.0	1.4	50.0000	ND	73.2	32 - 139	6.35	20
cis-1,2-Dichloroethene	45.3800	5.0	0.67	50.0000	ND	90.8	51 - 116	2.67	20
cis-1,3-Dichloropropene	44.2600	5.0	1.9	50.0000	ND	88.5	41 - 126	5.90	20
Di-isopropyl ether	45.3300	5.0	0.55	50.0000	ND	90.7	50 - 122	5.37	20
Dibromochloromethane	41.1500	5.0	1.0	50.0000	ND	82.3	42 - 118	6.08	20
Dibromomethane	41.3300	5.0	1.6	50.0000	ND	82.7	46 - 122	6.24	20
Dichlorodifluoromethane	31.4100	5.0	2.2	50.0000	ND	62.8	31 - 146	6.23	20
Ethyl Acetate	419.500	50	8.1	500.000	ND	83.9	17 - 148	8.66	20
Ethyl Ether	451.740	50	6.1	500.000	ND	90.3	42 - 120	4.32	20
Ethyl tert-butyl ether	45.9200	5.0	0.67	50.0000	ND	91.8	41 - 133	6.08	20
Ethylbenzene	89.9200	5.0	0.91	100.000	ND	89.9	38 - 136	5.03	20
Freon-113	45.6300	5.0	2.8	50.0000	ND	91.3	43 - 139	9.48	20
Hexachlorobutadiene	44.2100	5.0	2.5	50.0000	ND	88.4	2 - 135	9.44	20
Isopropylbenzene	46.5400	5.0	1.8	50.0000	ND	93.1	31 - 136	4.39	20
m,p-Xylene	92.8300	10	1.5	100.000	ND	92.8	36 - 137	5.27	20
Methylene chloride	42.6700	5.0	2.3	50.0000	ND	85.3	28 - 137	8.20	20
MTBE	44.0900	5.0	0.63	50.0000	ND	88.2	44 - 126	6.09	20
n-Butylbenzene	47.1900	5.0	2.4	50.0000	ND	94.4	8 - 154	4.66	20
n-Propylbenzene	46.3200	5.0	2.2	50.0000	ND	92.6	28 - 135	3.60	20
Naphthalene	38.5700	5.0	0.97	50.0000	ND	77.1	7 - 136	9.39	20
o-Xylene	90.9900	5.0	0.87	100.000	ND	91.0	35 - 129	5.38	20
sec-Butylbenzene	46.0700	5.0	2.3	50.0000	ND	92.1	25 - 138	5.94	20
Styrene	42.4400	5.0	1.5	50.0000	ND	84.9	33 - 128	7.86	20
tert-Amyl methyl ether	43.7200	5.0	0.59	50.0000	ND	87.4	41 - 124	5.97	20
tert-Butanol	211.180	100	19	250.000	ND	84.5	8 - 157	4.75	20
tert-Butylbenzene	45.8300	5.0	2.0	50.0000	ND	91.7	26 - 134	3.68	20
Tetrachloroethene	45.8800	5.0	1.6	50.0000	ND	91.8	36 - 130	3.95	20
Toluene	86.5500	5.0	0.94	100.000	ND	86.6	44 - 136	4.79	20
trans-1,2-Dichloroethene	44.8300	5.0	0.59	50.0000	ND	89.7	49 - 119	4.70	20
trans-1,3-Dichloropropene	42.9200	5.0	2.1	50.0000	ND	85.8	33 - 136	4.93	20
Trichloroethene	44.7700	5.0	3.1	50.0000	ND	89.5	32 - 147	4.90	20
Trichlorofluoromethane	43.5600	5.0	1.4	50.0000	ND	87.1	41 - 144	5.01	20
Vinyl acetate	357.850	50	9.8	500.000	ND	71.6	0 - 146	17.5	20
Vinyl chloride	39.1600	5.0	1.7	50.0000	ND	78.3	39 - 142	5.20	20

Surrogate: 1,2-Dichloroethane-d4 42.57 50.0000 85.1 58 - 144

Surrogate: 4-Bromofluorobenzene 50.98 50.0000 102 60 - 137

Surrogate: Dibromofluoromethane 52.57 50.0000 105 70 - 131



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 05/29/2018

Volatile Organic Compounds by EPA 5035/EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8E0619 - MSVOA_S (continued)

Matrix Spike Dup (B8E0619-MSD1) - Continued

Source: 1801893-01

Prepared: 5/21/2018 Analyzed: 5/21/2018

Surrogate: Toluene-d8

50.91

50.0000

102

79 - 131



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 05/29/2018

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.



American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Number of Pages 4

Date Received 05/21/2018

Date Reported 05/29/2018

Telephone: (562)989-4045

Attention: Dominic Mata

Job Number	Order Date	Client
92703	05/21/2018	ATL

Project ID: 1801894
Project Name: PO# SC12807

Enclosed please find results of analyses of 1 soil sample which was analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____

Approved By: _____

Cyrus Razmara, Ph.D.
Laboratory Director



American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181

Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Page: 1 A

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Project ID: 1801894

Date Received 05/21/2018

Date Reported 05/29/2018

Telephone: (562) 989-4045

Attention: Dominic Mata

Job Number	Order Date	Client
92703	05/21/2018	ATL

CERTIFICATE OF ANALYSIS CASE NARRATIVE

AETL received 1 samples with the following specification on 05/21/2018.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
92703.01	1801894-01	05/19/2018	Soil	1
Method ^ Submethod	Req Date	Priority	TAT	Units
(8141A)	05/28/2018	2	Normal	ug/Kg

The samples were analyzed as specified on the enclosed chain of custody.
No analytical non-conformances were encountered.

Unless otherwise noted, all results of soil and solid samples are based on wet weight.

Checked By: 

Approved By: 

Cyrus Razmara, Ph.D.
Laboratory Director



American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

ANALYTICAL RESULTS

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Telephone: (562)989-4045

Attn: Dominic Mata

Page: 2

Project ID: 1801894

Project Name: PO# SC12807

AETL Job Number	Submitted	Client
92703	05/21/2018	ATL

Method: (8141A), Organophosphorus Compounds by GC/NPD/FPD

QC Batch No: 0522181B1

Our Lab I.D.			Method Blank	92703.01			
Client Sample I.D.				1801894-01			
Date Sampled				05/19/2018			
Date Prepared			05/22/2018	05/22/2018			
Preparation Method			3550B	3550B			
Date Analyzed			05/22/2018	05/22/2018			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	MDL	PQL	Results	Results			
Azinphos-methyl	50	50	ND	ND			
Bolstar (Sulprofos)	50	50	ND	ND			
Chloropyrifos (Dursban)	50	50	ND	ND			
Coumaphos	50	50	ND	ND			
Demeton-O & S	50	50	ND	ND			
Diazinon	50	50	ND	ND			
Dichlorvos (DDVP, Diclorovos)	50	50	ND	ND			
Disulfoton	50	50	ND	ND			
Ethoprop	50	50	ND	ND			
Fensulfothion	50	50	ND	ND			
Fenthion	50	50	ND	ND			
Malathion	50	50	ND	ND			
Merphos	50	50	ND	ND			
Methyl parathion (Parathion methyl)	50	50	ND	ND			
Mevinphos	100	100	ND	ND			
Naled	100	100	ND	ND			
Phorate (Phosphorodithioic acid)	50	50	ND	ND			
Ronnel	50	50	ND	ND			
Tetrachlorvinphos (Stirophos)	50	50	ND	ND			
Tokuthion (Prothiofos)	50	50	ND	ND			
Trichloronate	50	50	ND	ND			



American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

ANALYTICAL RESULTS

Page: 3

Project ID: 1801894
Project Name: PO# SC12807

AETL Job Number	Submitted	Client
92703	05/21/2018	ATL

Method: (8141A), Organophosphorus Compounds by GC/NPD/FPD

Our Lab I.D.			Method Blank	92703.01			
Surrogates	%Rec.Limit		% Rec.	% Rec.			
Tributylphosphate	52-129		68.4	70.4			



American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

QUALITY CONTROL RESULTS

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Telephone: (562)989-4045

Attn: Dominic Mata

Page: 4

Project ID: 1801894

Project Name: PO# SC12807

AETL Job Number	Submitted	Client
92703	05/21/2018	ATL

Method: (8141A), Organophosphorus Compounds by GC/NPD/FPD

QC Batch No: 0522181B1; Dup or Spiked Sample: 92680.11; LCS: Clean Sand; QC Prepared: 05/22/2018; QC Analyzed: 05/22/2018;
Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Bolstar (Sulprofos)	0.00	200	171	85.5	200	167	83.5	2.4	50-150	<40
Ethoprop	0.00	200	164	82.0	200	161	80.5	1.8	50-150	<40
Phorate (Phosphorodithioic acid)	0.00	200	142	71.0	200	139	69.5	2.1	50-150	<40
Ronnel	0.00	200	188	94.0	200	179	89.5	4.9	50-150	<40
Surrogates										
Tributylphosphate	0.00	250	174	69.6	250	171	68.4	1.7	50-150	<40

QC Batch No: 0522181B1; Dup or Spiked Sample: 92680.11; LCS: Clean Sand; QC Prepared: 05/22/2018; QC Analyzed: 05/22/2018;
Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Bolstar (Sulprofos)	200	163	81.5	200	167	83.5	2.4	50-150	<40	
Ethoprop	200	157	78.5	200	162	81.0	3.1	50-150	<40	
Phorate (Phosphorodithioic acid)	200	134	67.0	200	137	68.5	2.2	50-150	<40	
Ronnel	200	183	91.5	200	169	84.5	8.0	50-150	<40	
Surrogates										
Tributylphosphate	250	161	64.4	250	168	67.2	4.3	50-150	<40	



American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street, Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.



American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street, Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1801894

92703

SENDING LABORATORY:

Advanced Technology Laboratories

3275 Walnut Avenue

Signal Hill, CA 90755

Phone: 562.989.4045

Fax: 562.989.6348

Project Manager: Dominic Mata

(Dominic@atlglobal.com)

Sampler: Thompson

RECEIVING LABORATORY:

AETL

2834 North Naomi Street

Burbank, CA 91504

Phone : (818) 845-8200

Fax: (818) 845-8840

PO#: SC12807- STANDARD TAT

Am

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1801894-01 / PB-48-6" 8141_SUB [Organophosphorus Pesticides] 1-Glass Jar - 4 oz	05/28/18 17:00	Soil 06/02/18 09:35	05/19/18 09:35	92703.01

Released By

Date

Received By

Date

Released By

Date

Received By

Date



American Environmental Testing Laboratory Inc.


2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

COOLER RECEIPT FORM

Client Name: <u>AETL</u>			
Project Name:			
AETL Job Number: <u>92701, 92702, 90703, 92704, 92705</u>			
Date Received: <u>05/21/18</u> Received by: <u>John Claude</u>			
Carrier: <input checked="" type="checkbox"/> AETL Courier <input type="checkbox"/> Client <input type="checkbox"/> GSO <input type="checkbox"/> FedEx <input type="checkbox"/> UPS			
<input type="checkbox"/> Others:			
Samples were received in: <input checked="" type="checkbox"/> Cooler (<u>1</u>) <input type="checkbox"/> Other (Specify):			
Inside temperature of shipping container No 1: <u>7.6</u> , No 2: , No 3:			
Type of sample containers: <input type="checkbox"/> VOA, <input type="checkbox"/> Glass bottles, <input checked="" type="checkbox"/> Wide mouth jars, <input type="checkbox"/> HDPE bottles, <input type="checkbox"/> Metal sleeves, <input type="checkbox"/> Others (Specify):			
How are samples preserved: <input type="checkbox"/> None, <input type="checkbox"/> Ice, <input checked="" type="checkbox"/> Blue Ice, <input type="checkbox"/> Dry Ice			
<input checked="" type="checkbox"/> None, <u>HNO₃</u> , <u>NaOH</u> , <u>ZnOAc</u> , <u>HCl</u> , <u>Na₂S₂O₃</u> , <u>MeOH</u>			
<input type="checkbox"/> Other (Specify):			
	Yes	No, explain below	Name, if client was notified.
1. Are the COCs Correct?	<input checked="" type="checkbox"/>		
2. Are the Sample labels legible?	<input checked="" type="checkbox"/>		
3. Do samples match the COC?	<input checked="" type="checkbox"/>		
4. Are the required analyses clear?	<input checked="" type="checkbox"/>		
5. Is there enough samples for required analysis?	<input checked="" type="checkbox"/>		
6. Are samples sealed with evidence tape?	<input checked="" type="checkbox"/>		
7. Are sample containers in good condition?	<input checked="" type="checkbox"/>		
8. Are samples preserved?	<input checked="" type="checkbox"/>		
9. Are samples preserved properly for the intended analysis?	<input checked="" type="checkbox"/>		
10. Are the VOAs free of headspace?	<input checked="" type="checkbox"/>		
11. Are the jars free of headspace?	<input checked="" type="checkbox"/>		

Explain all "No" answers for above questions:

CHAIN OF CUSTODY RECORD

		Site: <u>2nd St - ES</u> Address: <u>7211 Grape St.</u> <u>Los Angeles, CA</u>		Project Manager: <input type="checkbox"/> MALVEY <input checked="" type="checkbox"/> THOMPSON Sampled By: <input type="checkbox"/> MALVEY <input checked="" type="checkbox"/> THOMPSON		LAUSD-4524-SOIL-PROFILE TAT: <u>(NORM)</u> - RUSH										
Laboratory: <u>ATL</u>		Page <u>1</u> of <u>2</u>														
LABORATORY ID	PINNACLE SAMPLE ID	LABORATORY ID	Sample Time	Sample Date	J=Jar T=Tube V=VOA	EPA 5035 (EnCore)	TPH Full Scan EPA 801.5M	VOC EPA 8260B	SVOC EPA 8270C	PCB's EPA 8082	Organo-chlorine Pesticides EPA 8081A	Organo-phosphorous Pesticides EPA 8141A	Chlorinated Herbicides EPA 8151A	Arsenic Thallium EPA 6020B	Title 22 Metals EPA 6010B/2430A	Hexavalent Chromium EPA 7199
1801894-01	PB-48-6"		935	5/17/18	402.5	X		X				X		X		
02	PB-48-18"		940		402.5											
03	PB-48-30"		945													
04	PB-11-A-6"		830													
05	PB-11-A-18"		835											X		
06	PB-11-A-30"		840													
07	PB-11-B-6"		845											X		
08	PB-11-B-18"		855													
09	PB-11-B-30"		859													
10	PB-11-C-6"		905											X		
11	PB-11-C-18"		910													
12	PB-11-C-30"		915													
13	PB-11-D-6"		920											X		
14	PB-11-D-18"		925													
15	PB-11-D-30"		930													
16	PB-27-A-6"		935											X		
17	PB-27-A-18"		940													
18	PB-27-A-30"		945													
19	PB-27-B-6"		950											X		
20	PB-27-B-18"		955													
Relinquished By: <u>[Signature]</u>	Date/Time: <u>5/19/18</u>	Relinquished By:	Date/Time:	NOTES:												
Received By: <u>[Signature]</u>	Date/Time: <u>5/19/18 12:23</u>	Received By:	Date/Time:													

CHAIN OF CUSTODY RECORD



Site: 92nd St. ES Project Manager: ☐ MALVEY ☒ THOMPSON
 Address: 9241 Grape St. Sampled By: ☐ MALVEY ☒ THOMPSON
 Laboratory: Los Angeles CA Page 2 of 2

PINNACLE SAMPLE ID	LABORATORY ID	Sample Time	Sample Date	J=Jar T=Tube V=VOA	EPA 5035 (EnCore)	TPH Full Scan EPA 8015M	VOC EPA 8260B	SVOC EPA 8270C	PCB's EPA 8082	Organo- chlorine Pesticides EPA 8081A	Organo- phosphorus Pesticides EPA 8141A	Chlorinated Herbicides EPA 8151A	Arsenic Thallium- EPA 6020B	Title 22 Metals- EPA 6010B-7449A	Hexavalent Chromium EPA 7199
PB-27-B-30 ^u	180894-21	1000	5/17/18	4025											
PB-27-C-6 ^u	-22	1005											X		
PB-27-C-18 ^u	-23	1010													
PB-27-C-30 ^u	-24	1015													
PB-27-D-6 ^u	-25	1020											X		
PB-27-D-18 ^u	-26	1025													
PB-27-D-30 ^u	-27	1030													
PB-34-A-6 ^u	-28	1035											X		
PB-34-A-18 ^u	-29	1040													
PB-34-A-30 ^u	-30	1045													
PB-34-B-6 ^u	-31	1050											X		
PB-34-B-18 ^u	-32	1055													
PB-34-B-30 ^u	-33	1100													
PB-34-C-6 ^u	-34	1105											X		
PB-34-C-18 ^u	-35	1110													
PB-34-C-30 ^u	-36	1115													
PB-34-D-6 ^u	-37	1120											X		
PB-34-D-18 ^u	-38	1125													
PB-34-D-30 ^u	-39	1130													
Relinquished By: <u>[Signature]</u> Date/Time: <u>5/19/18</u> Relinquished By: _____ Date/Time: _____ Received By: <u>[Signature]</u> Date/Time: <u>5/19/18 1223</u> Received By: _____ Date/Time: _____															

NOTES:



August 20, 2018

Keith Thompson
Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610
Tel: (949) 470-3691
Fax: (949) 887-8247

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1802927
Client Reference : 92nd St. ES

Enclosed are the results for sample(s) received on August 13, 2018 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light gray rectangular background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 08/20/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PB-11-AA-6"	1802927-01	Soil	8/13/18 0:00	8/13/18 10:55
PB-11-AA-18"	1802927-02	Soil	8/13/18 0:00	8/13/18 10:55
PB-11-BB-6"	1802927-04	Soil	8/13/18 0:00	8/13/18 10:55
PB-11-BB-18"	1802927-05	Soil	8/13/18 0:00	8/13/18 10:55
PB-11-CC-6"	1802927-07	Soil	8/13/18 0:00	8/13/18 10:55
PB-11-CC-18"	1802927-08	Soil	8/13/18 0:00	8/13/18 10:55
PB-27-AA-6	1802927-10	Soil	8/13/18 0:00	8/13/18 10:55
PB-27-AA-18	1802927-11	Soil	8/13/18 0:00	8/13/18 10:55
PB-27-CC-6	1802927-13	Soil	8/13/18 0:00	8/13/18 10:55
PB-27-CC-18	1802927-14	Soil	8/13/18 0:00	8/13/18 10:55
PB-11-DD-6	1802927-16	Soil	8/13/18 0:00	8/13/18 10:55
PB-11-DD-18	1802927-17	Soil	8/13/18 0:00	8/13/18 10:55



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-11-AA-6"

Lab ID: 1802927-01

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.3	1.0	20	B8H0458	08/15/2018	08/16/18 13:58	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-11-AA-18"

Lab ID: 1802927-02

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.8	1.0	20	B8H0458	08/15/2018	08/16/18 14:02	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-11-BB-6"

Lab ID: 1802927-04

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	61	2.5	50	B8H0458	08/15/2018	08/16/18 14:20	D6



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-11-BB-18"

Lab ID: 1802927-05

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	20	B8H0458	08/15/2018	08/16/18 14:03	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-11-CC-6"

Lab ID: 1802927-07

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	120	5.0	100	B8H0458	08/15/2018	08/16/18 14:21	D6



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-11-CC-18"

Lab ID: 1802927-08

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	20	B8H0458	08/15/2018	08/16/18 14:07	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-27-AA-6

Lab ID: 1802927-10

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	59	2.5	50	B8H0458	08/15/2018	08/16/18 14:22	D6



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-27-AA-18

Lab ID: 1802927-11

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	20	B8H0458	08/15/2018	08/16/18 14:08	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-27-CC-6

Lab ID: 1802927-13

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	91	2.5	50	B8H0458	08/15/2018	08/16/18 14:23	D6



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-27-CC-18

Lab ID: 1802927-14

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	20	B8H0458	08/15/2018	08/16/18 14:10	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-11-DD-6

Lab ID: 1802927-16

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	120	5.0	100	B8H0458	08/15/2018	08/16/18 14:29	D6



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Client Sample ID PB-11-DD-18

Lab ID: 1802927-17

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	18	1.0	20	B8H0458	08/15/2018	08/16/18 14:12	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

QUALITY CONTROL SECTION

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B8H0458 - EPA 3050B MS_S										
Blank (B8H0458-BLK1)					Prepared: 8/15/2018 Analyzed: 8/16/2018					
Arsenic	ND	0.25	0.01							
LCS (B8H0458-BS1)					Prepared: 8/15/2018 Analyzed: 8/16/2018					
Arsenic	4.11264	0.25	0.01	5.00000		82.3	70 - 130			
Matrix Spike (B8H0458-MS1)					Source: 1802927-01 Prepared: 8/15/2018 Analyzed: 8/16/2018					
Arsenic	14.6097	1.0	0.04	5.00000	7.26851	147	75 - 125			M1
Matrix Spike Dup (B8H0458-MSD1)					Source: 1802927-01 Prepared: 8/15/2018 Analyzed: 8/16/2018					
Arsenic	9.34198	1.0	0.04	5.00000	7.26851	41.5	75 - 125	44.0	20	M1, R



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8H0458 - EPA 3050B MS_S

Post Spike (B8H0458-PS1)

Source: 1802927-01

Prepared: 8/15/2018 Analyzed: 8/16/2018

Arsenic	7.23709		5.00000	3.63426	72.1	75 - 125			
---------	---------	--	---------	---------	------	----------	--	--	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 08/20/2018

Notes and Definitions

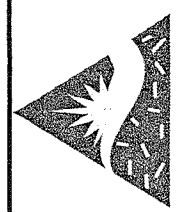
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D6	Sample required dilution due to high concentration of target analyte.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

52°C

CHAIN OF CUSTODY RECORD



Site: 92nd St. ES Project Manager: ☐ MALVEY ☒ THOMPSON LAUSD-4524 SOIL PROFILE

Address: 92nd Grape St. Sampled By: ☐ MALVEY ☒ THOMPSON TAT: NORM - RUSH

Laboratory: Los Angeles, CA Laboratory: ATL Page 1 of 1

PINNACLE SAMPLE ID	LABORATORY ID	Sample Time	Sample Date	J=Jar T=Tube V=VOA	EPA 5035 (EnCore)	TPH Full Scan EPA 8015M	VOC EPA 8260B	SVOC EPA 8270C	PCB's EPA 8082	Organo- chlorine Pesticides EPA 8081A	Organo- phosphorous Pesticides EPA 8141A	Chlorinated Herbicides EPA 8151A	Arsenic Schiffman EPA 6020B	Title 22 Metals EPA 6010B/7420A	Hexavalent Chromium EPA 7199
BB-11-AA-6 ^h	1802927-01		8/13/18	400-Test									X		
BB-11-AA-18 ^h	-02												X		
BB-11-AA-30 ^h	-03														
BB-11-BB-6 ^h	-04												X		
BB-11-BB-18 ^h	-05												X		
BB-11-BB-30 ^h	-06												X		
BB-11-CC-6 ^h	-07												X		
BB-11-CC-18 ^h	-08												X		
BB-11-CC-30 ^h	-09												X		
BB-27-AA-6 ^h	-10												X		
BB-27-AA-18 ^h	-11												X		
BB-27-AA-30 ^h	-12												X		
BB-27-CC-6 ^h	-13												X		
BB-27-CC-18 ^h	-14												X		
BB-27-CC-30 ^h	-15												X		
BB-11-DD-6 ^h	-16												X		
BB-11-DD-18 ^h	-17												X		
BB-11-DD-30 ^h	-18												X		

Relinquished By: [Signature] Date/Time: 8/13/18 10:55

Received By: [Signature] Date/Time: 8/13/18 10:55

NOTES:



September 27, 2018

Keith Thompson
Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610
Tel: (949) 470-3691
Fax: (949) 887-8247

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1803528
Client Reference : 92nd St. ES

Enclosed are the results for sample(s) received on September 19, 2018 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 09/27/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PB-51-6"	1803528-05	Soil	9/19/18 0:00	9/19/18 16:58
PB-53-6"	1803528-09	Soil	9/19/18 0:00	9/19/18 16:58
PB-61-6"	1803528-25	Soil	9/19/18 0:00	9/19/18 16:58
PB-69-6"	1803528-41	Soil	9/19/18 0:00	9/19/18 16:58
PB-70-6"	1803528-43	Soil	9/19/18 0:00	9/19/18 16:58
PB-71-6"	1803528-45	Soil	9/19/18 0:00	9/19/18 16:58
PB-71-18"	1803528-46	Soil	9/19/18 0:00	9/19/18 16:58



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 09/27/2018

Client Sample ID PB-51-6"

Lab ID: 1803528-05

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	20	B8I0535	09/20/2018	09/24/18 16:33	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 09/27/2018

Client Sample ID PB-53-6"

Lab ID: 1803528-09

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	20	B8I0535	09/20/2018	09/24/18 16:36	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 09/27/2018

Client Sample ID PB-61-6"

Lab ID: 1803528-25

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	20	B8I0535	09/20/2018	09/24/18 16:37	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 09/27/2018

Client Sample ID PB-69-6"

Lab ID: 1803528-41

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	20	B8I0535	09/20/2018	09/24/18 16:38	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 09/27/2018

Client Sample ID PB-70-6"

Lab ID: 1803528-43

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	11	1.0	20	B8I0535	09/20/2018	09/24/18 16:39	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 09/27/2018

Client Sample ID PB-71-6"

Lab ID: 1803528-45

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	35	1.0	20	B8I0535	09/20/2018	09/24/18 16:43	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 09/27/2018

Client Sample ID PB-71-18"

Lab ID: 1803528-46

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.4	1.0	20	B8I0535	09/20/2018	09/24/18 16:44	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 09/27/2018

QUALITY CONTROL SECTION

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B8I0535 - EPA 3050B MS_S										
Blank (B8I0535-BLK1)					Prepared: 9/20/2018 Analyzed: 9/24/2018					
Arsenic	ND	0.25	0.01							
LCS (B8I0535-BS1)					Prepared: 9/20/2018 Analyzed: 9/24/2018					
Arsenic	3.81496	0.25	0.01	5.00000		76.3	70 - 130			
Matrix Spike (B8I0535-MS1)					Source: 1803528-05 Prepared: 9/20/2018 Analyzed: 9/24/2018					
Arsenic	7.09465	1.0	0.04	5.00000	2.55115	90.9	75 - 125			
Matrix Spike Dup (B8I0535-MSD1)					Source: 1803528-05 Prepared: 9/20/2018 Analyzed: 9/24/2018					
Arsenic	6.57982	1.0	0.04	5.00000	2.55115	80.6	75 - 125	7.53	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 09/27/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8I0535 - EPA 3050B MS_S

Post Spike (B8I0535-PS1)

Source: 1803528-05

Prepared: 9/20/2018 Analyzed: 9/24/2018

Arsenic	5.76870		5.00000	1.27557	89.9	75 - 125			
---------	---------	--	---------	---------	------	----------	--	--	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 09/27/2018

Notes and Definitions

D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD



Site: 92nd St. ES
 Address: 9211 Grape St
Los Angeles, CA

Project Manager: ☐ MALVEY ☒ THOMPSON
 Sampled By: ☒ MALVEY ☒ THOMPSON
 Laboratory: ATL Page 1 of 3

LABORATORY ID	LABORATORY ID	Sample Time	Sample Date	J=Jar T=Tube V=VOA	EPA 5035 (EnCore)	TPH Full Scan EPA 801.5M	VOC EPA 8260B	SVOC EPA 8270C	PCB's EPA 8082	Organo- chlorine Pesticides EPA 8081A	Organo- phosphorous Pesticides EPA 8141A	Chlorinated Herbicides EPA 8151A	Arsenic EPA 6020B	Title 22 Metals EPA 6010B/7400A	Hexavalent Chromium EPA 7199
PB49-6"	1803528-01		9/19/18	402-Jar											
PB49-18"	-02														
PB50-6"	-03														
PB50-18"	-04														
PB51-6"	-05														
PB51-18"	-06														
PB52-6"	-07														
PB52-18"	-08														
PB53-6"	-09														
PB53-18"	-10														
PB54-6"	-11														
PB54-18"	-12														
PB55-6"	-13														
PB55-18"	-14														
PB56-6"	-15														
PB56-18"	-16														
PB57-6"	-17														
PB57-18"	-18														
PB58-6"	-19														
PB58-18"	-20														

Relinquished By: [Signature] Date/Time: 9/19/18 4:58
 Received By: [Signature] Date/Time: 9/19/18 16:57

Relinquished By: [Signature] Date/Time: 9/19/18 4:58
 Received By: [Signature] Date/Time: 9/19/18 16:57

NOTES:

CHAIN OF CUSTODY RECORD



Site: 92nd St. ES		Project Manager: <input type="checkbox"/> MALVEY <input checked="" type="checkbox"/> THOMPSON		LAUSD 554-SOH-PROFILE	
Address: 9211 Grape St, Los Angeles, CA		Sampled By: <input type="checkbox"/> MALVEY <input checked="" type="checkbox"/> THOMPSON		TAT: NORM-RUSH	
Laboratory: ATL		Page 2 of 3			

PINNACLE SAMPLE ID	LABORATORY ID	Sample Time	Sample Date	J=Jar T=Tube V=VOA	EPA 5035 (EnCore)	TPH Full Scan EPA 8015M	VOC EPA 8260B	SVOC EPA 8270C	PCB's EPA 8082	Organo- chlorine Pesticides EPA 8081A	Organo- phosphorous Pesticides EPA 8141A	Chlorinated Herbicides EPA 8151A	Arsenic EPA 6020B	Title 22 Metals EPA 6010B/7470A	Hexavalent Chromium EPA 7199
PB-59-6"	1803528-21		9/19/18	40±5											
PB-59-18"	-22														
PB-60-6"	-23														
PB-60-18"	-24														
PB-61-6"	-25												X		
PB-61-18"	-26														
PB-62-6"	-27														
PB-62-18"	-28														
PB-63-6"	-29														
PB-63-18"	-30														
PB-64-6"	-31														
PB-64-18"	-32														
PB-65-6"	-33														
PB-65-18"	-34														
PB-66-6"	-35														
PB-66-18"	-36														
PB-67-6"	-37														
PB-67-18"	-38														
PB-68-6"	-39														
PB-68-18"	-40														
Relinquished By: [Signature]	Date/Time: 9/19/18 4:58	Relinquished By:													
Received By: [Signature]	Date/Time: 9/19/18 1:55	Received By:													
NOTES:															

LAUSD 4524 SOH PROFILE

TAT: NORM-2 RUSH

Page 3 of 3

[illegible]

NOTES:

Date/Time:

Relinquished By:

Date/Time: 9/19/2025

Requisitioned By: 

Date/Time:

Received By:

Date/Time: 9/19/18 16:55

Reviewed By: *[Signature]*

PINNACLE ENVIRONMENTAL TECHNOLOGIES

2 Santa Maria
Foothill Ranch, CA 92610

TEL: (949) 470-3691
FAX: (949) 595-0459



October 04, 2018

Keith Thompson
Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610
Tel: (949) 470-3691
Fax: (949) 887-8247

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1803528
Client Reference : 92nd St. ES

Enclosed are the results for sample(s) received on September 19, 2018 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 10/04/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PB-64-6"	1803528-31	Soil	9/19/18 0:00	9/19/18 16:58
PB-64-18"	1803528-32	Soil	9/19/18 0:00	9/19/18 16:58
PB-68-6"	1803528-39	Soil	9/19/18 0:00	9/19/18 16:58
PB-68-18"	1803528-40	Soil	9/19/18 0:00	9/19/18 16:58
PB-72-6"	1803528-47	Soil	9/19/18 0:00	9/19/18 16:58
PB-72-18"	1803528-48	Soil	9/19/18 0:00	9/19/18 16:58



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 10/04/2018

Client Sample ID PB-64-6"

Lab ID: 1803528-31

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	20	B8J0057	10/02/2018	10/02/18 12:08	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 10/04/2018

Client Sample ID PB-64-18"

Lab ID: 1803528-32

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	20	B8J0057	10/02/2018	10/02/18 12:11	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 10/04/2018

Client Sample ID PB-68-6"

Lab ID: 1803528-39

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	7.2	1.0	20	B8J0057	10/02/2018	10/02/18 12:12	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 10/04/2018

Client Sample ID PB-68-18"

Lab ID: 1803528-40

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	20	B8J0057	10/02/2018	10/02/18 12:15	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 10/04/2018

Client Sample ID PB-72-6"

Lab ID: 1803528-47

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	6.3	1.0	20	B8J0057	10/02/2018	10/02/18 12:15	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 10/04/2018

Client Sample ID PB-72-18"

Lab ID: 1803528-48

Total Metals by ICP-MS EPA 6020

Analyst: PT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	20	B8J0057	10/02/2018	10/02/18 12:16	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 10/04/2018

QUALITY CONTROL SECTION

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8J0057 - EPA 3050B MS_S

Blank (B8J0057-BLK1)

Prepared: 10/2/2018 Analyzed: 10/2/2018

Arsenic	ND	0.25	0.01							
---------	----	------	------	--	--	--	--	--	--	--

LCS (B8J0057-BS1)

Prepared: 10/2/2018 Analyzed: 10/2/2018

Arsenic	3.97460	0.25	0.01	5.00000		79.5	70 - 130			
---------	---------	------	------	---------	--	------	----------	--	--	--

Matrix Spike (B8J0057-MS1)

Source: 1803528-31

Prepared: 10/2/2018 Analyzed: 10/2/2018

Arsenic	5.42317	1.0	0.04	5.00000	1.18406	84.8	75 - 125			
---------	---------	-----	------	---------	---------	------	----------	--	--	--

Matrix Spike Dup (B8J0057-MSD1)

Source: 1803528-31

Prepared: 10/2/2018 Analyzed: 10/2/2018

Arsenic	5.69708	1.0	0.04	5.00000	1.18406	90.3	75 - 125	4.93	20	
---------	---------	-----	------	---------	---------	------	----------	------	----	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 10/04/2018

Total Metals by ICP-MS EPA 6020 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8J0057 - EPA 3050B MS_S

Post Spike (B8J0057-PS1)

Source: 1803528-31

Prepared: 10/2/2018 Analyzed: 10/2/2018

Arsenic	5.20869		5.00000	0.592030	92.3	75 - 125			
---------	---------	--	---------	----------	------	----------	--	--	--



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 10/04/2018

Notes and Definitions

D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Dominic Mata

From: Keith Thompson <ktppinnacle@cox.net>
Sent: Thursday, September 27, 2018 2:56 PM
To: Dominic Mata
Subject: Re: Results/Invoices - 92nd St. ES (ATL#1803528)

D.,

Check that - analyze:

PB-72-6"
PB-72-18"
PB-68-6"
PB-68-18"
PB-64-6"
PB-64-18"

K.

On Sep 27, 2018, at 2:39 PM, Dominic Mata wrote:

Good afternoon Keith,

Please find your results and invoice for the above project attached. If I can further assist, please let me know.

Thanks,

<image001.png> Dominic Mata | Project Coordinator
ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Avenue, Signal Hill CA 90755
O: 562.989.4045 ext. 238 | <http://www.atlglobal.com>

Laboratory Excellence Defined

This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

<1803528.pdf><inv0036272_1803528.pdf>



November 30, 2018

Keith Thompson
Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch, CA 92610
Tel: (949) 470-3691
Fax: (949) 887-8247

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1804361
Client Reference : 92nd St. ES

Enclosed are the results for sample(s) received on November 21, 2018 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E Rodriguez', is placed above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 11/30/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PB-4-6"-R	1804361-01	Soil	11/21/18 0:00	11/21/18 12:55
PB-8-6"-R	1804361-02	Soil	11/21/18 0:00	11/21/18 12:55
PB-28-6"-R	1804361-03	Soil	11/21/18 0:00	11/21/18 12:55
PB-30-6"-R	1804361-04	Soil	11/21/18 0:00	11/21/18 12:55
PB-34-6"-R	1804361-05	Soil	11/21/18 0:00	11/21/18 12:55
PB-37-6"-R	1804361-06	Soil	11/21/18 0:00	11/21/18 12:55
PB-11-6"-R	1804361-07	Soil	11/21/18 0:00	11/21/18 12:55
PB-11-B-6"-R	1804361-08	Soil	11/21/18 0:00	11/21/18 12:55
PB-11-BB-6"-R	1804361-09	Soil	11/21/18 0:00	11/21/18 12:55
PB-11-CC-6"-R	1804361-10	Soil	11/21/18 0:00	11/21/18 12:55
PB-11-DD-6"-R	1804361-11	Soil	11/21/18 0:00	11/21/18 12:55
PB-27-AA-6"-R	1804361-12	Soil	11/21/18 0:00	11/21/18 12:55
PB-27-CC-6"-R	1804361-13	Soil	11/21/18 0:00	11/21/18 12:55



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 11/30/2018

Client Sample ID PB-4-6"-R

Lab ID: 1804361-01

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	20	B8K0769	11/28/2018	11/28/18 16:15	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

Client Sample ID PB-8-6"-R

Lab ID: 1804361-02

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	3.6	1.0	20	B8K0769	11/28/2018	11/28/18 16:19	D1



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 11/30/2018

Client Sample ID PB-28-6"-R

Lab ID: 1804361-03

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	1.4	1.0	20	B8K0769	11/28/2018	11/28/18 16:20	D1



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 11/30/2018

Client Sample ID PB-30-6"-R

Lab ID: 1804361-04

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	20	B8K0769	11/28/2018	11/28/18 16:21	D1



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 11/30/2018

Client Sample ID PB-34-6"-R

Lab ID: 1804361-05

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	4.4	1.0	20	B8K0770	11/28/2018	11/28/18 14:57	D1



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 11/30/2018

Client Sample ID PB-37-6"-R

Lab ID: 1804361-06

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	1.0	20	B8K0770	11/28/2018	11/28/18 15:03	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

Client Sample ID PB-11-6"-R

Lab ID: 1804361-07

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.55	0.25	5	B8K0758	11/28/2018	11/28/18 15:21	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.7	1.0	20	B8K0770	11/28/2018	11/28/18 15:05	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

Client Sample ID PB-11-B-6"-R

Lab ID: 1804361-08

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.69	0.25	5	B8K0758	11/28/2018	11/28/18 15:23	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.8	1.0	20	B8K0770	11/28/2018	11/28/18 15:06	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

Client Sample ID PB-11-BB-6"-R

Lab ID: 1804361-09

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.44	0.25	5	B8K0758	11/28/2018	11/28/18 15:24	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	20	B8K0770	11/28/2018	11/28/18 15:07	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

Client Sample ID PB-11-CC-6"-R

Lab ID: 1804361-10

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.25	5	B8K0758	11/28/2018	11/28/18 15:28	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	20	B8K0770	11/28/2018	11/28/18 15:11	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

Client Sample ID PB-11-DD-6"-R

Lab ID: 1804361-11

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	0.65	0.25	5	B8K0758	11/28/2018	11/28/18 15:30	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.0	1.0	20	B8K0770	11/28/2018	11/28/18 15:13	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

Client Sample ID PB-27-AA-6"-R

Lab ID: 1804361-12

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.25	5	B8K0758	11/28/2018	11/28/18 15:31	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.0	1.0	20	B8K0770	11/28/2018	11/28/18 15:14	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

Client Sample ID PB-27-CC-6"-R

Lab ID: 1804361-13

TCLP Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.25	5	B8K0758	11/28/2018	11/28/18 15:32	D1

STLC Metals by ICP-AES by EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	20	B8K0770	11/28/2018	11/28/18 15:16	D1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B8K0758 - EPA 3010A_S										
Blank (B8K0758-BLK1)					Prepared: 11/28/2018 Analyzed: 11/28/2018					
Arsenic	ND	0.050	0.0078							
LCS (B8K0758-BS1)					Prepared: 11/28/2018 Analyzed: 11/28/2018					
Arsenic	1.10858	0.050	0.0078	1.00000		111	80 - 120			
Duplicate (B8K0758-DUP1)					Source: 1804361-13 Prepared: 11/28/2018 Analyzed: 11/28/2018					
Arsenic	ND	0.25	0.039		ND			NR	20	
Matrix Spike (B8K0758-MS1)					Source: 1804361-13 Prepared: 11/28/2018 Analyzed: 11/28/2018					
Arsenic	2.67675	0.25	0.039	2.50000	ND	107	63 - 131			
Matrix Spike Dup (B8K0758-MSD1)					Source: 1804361-13 Prepared: 11/28/2018 Analyzed: 11/28/2018					
Arsenic	2.51365	0.25	0.039	2.50000	ND	101	63 - 131	6.28	20	



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8K0769 - STLC_S Extraction

Blank (B8K0769-BLK1)

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	ND	1.0	0.16
Lead	ND	1.0	0.094

Blank (B8K0769-BLK2)

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	ND	1.0	0.16
Lead	ND	1.0	0.094

LCS (B8K0769-BS1)

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	1.60907		2.00000	80.5	80 - 120
Lead	1.79855		2.00000	89.9	80 - 120

Duplicate (B8K0769-DUP1)

Source: 1803527-01

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	ND	1.0	0.16	ND	NR	20
Lead	9.64376	1.0	0.094	6.36885	40.9	20

Duplicate (B8K0769-DUP2)

Source: 1804361-04

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	ND	1.0	0.16	ND	NR	20	
Lead	0.892783	1.0	0.094	0.696116	24.8	20	R

Matrix Spike (B8K0769-MS1)

Source: 1803527-01

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	2.24815		2.50000	0.008152	89.6	70 - 130
Lead	8.12491		2.50000	6.36885	70.2	70 - 130

Matrix Spike (B8K0769-MS2)

Source: 1804361-04

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	2.06069		2.50000	-0.147662	82.4	70 - 130
Lead	2.93229		2.50000	0.696116	89.4	70 - 130

Matrix Spike Dup (B8K0769-MSD1)

Source: 1803527-01

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	2.21655	2.50000	0.008152	88.3	70 - 130	1.42	20	
Lead	7.90153	2.50000	6.36885	61.3	70 - 130	2.79	20	M1



Certificate of Analysis

Pinnacle Environmental Technologies
2 Santa Maria
Foothill Ranch , CA 92610

Project Number : 92nd St. ES
Report To : Keith Thompson
Reported : 11/30/2018

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8K0770 - STLC_S Extraction

Blank (B8K0770-BLK1)

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	ND	1.0	0.16
Lead	ND	1.0	0.094

LCS (B8K0770-BS1)

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	1.97706		2.00000	98.9	80 - 120
Lead	1.97604		2.00000	98.8	80 - 120

Duplicate (B8K0770-DUP1)

Source: 1804361-05

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	0.253404	1.0	0.16	0.204701		21.3	20	R
Lead	3.80913	1.0	0.094	4.37011		13.7	20	

Matrix Spike (B8K0770-MS1)

Source: 1804361-05

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	2.43298		2.50000	0.204701	89.1	70 - 130
Lead	6.20439		2.50000	4.37011	73.4	70 - 130

Matrix Spike Dup (B8K0770-MSD1)

Source: 1804361-05

Prepared: 11/28/2018 Analyzed: 11/28/2018

Arsenic	2.27486		2.50000	0.204701	82.8	70 - 130	6.72	20
Lead	6.17411		2.50000	4.37011	72.2	70 - 130	0.489	20



Certificate of Analysis

Pinnacle Environmental Technologies

Project Number : 92nd St. ES

2 Santa Maria

Report To : Keith Thompson

Foothill Ranch , CA 92610

Reported : 11/30/2018

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Address: 9711 Grand St.

Los Angeles, CA

[illegible]

Page 20 of 20

PINNACLE ENVIRONMENTAL TECHNOLOGIES

2 Santa Maria
Foothill Ranch, CA 92610

TEL: (949) 470-3691
FAX: (949) 595-0459

APPENDIX D

BORING LOGS

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-1

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
0850					4 inches of asphalt, no base		
					Silty Sand (SM), very fine sand, light olive brown, medium dense, moist, micaceous, no odor.		
0855			1				
					Becoming lighter olive brown with depth		
900			2				
					Similar to above		
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-2

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
0910			1		2 inches of asphalt, 3 inches of gravelly sand base (no odor)		
					Silty Sand (SM), very fine sand, tan, loose, dry, micaceous, no odor.		
0915			2		Sand (SP), trace Silt, very fine sand, tan, loose, damp, micaceous, no odor.		
					Similar to above		
0920			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-3

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1003					2 inches of asphalt, 2 inches of gravelly sand base (no odor)		
					Silt (ML), some very fine sand, light brown, loose, damp, micaceous, no odor.		
1005			1		Similar to above		
1007			2		Similar to above		
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-4

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
0925					2 inches of asphalt, 2 inches of gravelly sand base (no odor)		
					Silty Sand (SM), (possible trench fill), trace fine gravel, brown, loose, damp, micaceous, no odor.		
0928			1		Similar to above		
0930			2		Similar to above		
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-5

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
0932			1		2 inches of asphalt, 2 inches of gravelly sand base (no odor)		
					Sand (SP/SM), trace Silt, trace fine gravel, light brown, loose, damp, micaceous, no odor..		
0935			2		Similar to above		
0940			3		Similar to above		
			4		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			5		Boring backfilled with cement/bentonite slurry, black cement at surface.		
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-6

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1110					3 inches of asphalt, 4 inches of gravelly sand base (no odor)		
					Silt (ML), trace fine sand, olive brown, firm, damp, micaceous, no odor.		
1112			1		Similar to above		
1115			2		Similar to above		
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-7

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
0943			1		2 inches of asphalt, 4 inches of gravelly sand base (no odor)		
					Silty Sand (SM), very fine and fine sand, dark brown, becoming lighter with depth, loose, moist, micaceous, no odor.		
0945			2		Similar to above		
0948			3		Similar to above		
			4		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			5		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-8

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1100					2 inches of asphalt, 2 inches of gravelly sand base (no odor)		
					Silty Sand (SM), trace gravel, very fine and fine sand, olive brown, becoming lighter with depth, less gravel with depth, loose, moist, micaceous, no odor.		
1102			1		Similar to above		
1104			2		Similar to above		
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services





BORING No.: PB-9

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1123			1		1.5 inches of asphalt, 3 inches of gravelly sand base (no odor)		
					FILL, fine to medium sand, some silt, trace gravel, orange brown, loose, moist, no odor, to 15 inches.		
1126			2		Silt (ML), trace gravel, very fine and fine sand, olive brown, becoming lighter with depth, less gravel with depth, loose, moist, micaceous, no odor.		
					Similar to above		
1129			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-10

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
950			1		4 inches of asphalt.		
					Silty Sand (SM), trace gravel, very fine and fine sand, olive brown, becoming lighter with depth, less gravel with depth, loose, moist, micaceous, no odor.		
951			2		Silt (ML), trace fine sand, brown, firm, damp, micaceous, no odor.		
					Similar to above		
953			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-11

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
957					2 inches of asphalt.		
					Silty Sand (SM), very fine and fine sand, olive brown, becoming darker with depth, less gravel with depth, loose, moist, micaceous, no odor.		
959			1		Less silt with depth		
1001			2		Similar to above		
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-12

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1148					1 inch of asphalt, 4 inches of gravelly sand base.		
1151			1		Silty Sand (SM), very fine sand, olive brown, becoming lighter with depth, loose, moist, micaceous, no odor, to 24 inches.		
					Similar to above		
1155			2				
					Silt (ML), trace fine sand, brown, firm, damp, micaceous, no odor.		
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				



PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

BORING LOG

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-13

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1135					5 inches of concrete at surface.		
1138			1		FILL, fine to medium sand, some silt, trace gravel, orange brown, becoming less orange and darker with depth, less gravel with depth, loose, moist, no odor, to 26 inches.		
1141			2		Less silt		
					Clay (CL) with silt, damp, dark olive brown, stiff, damp, no odor.		
					Silt (ML) with fine sand, damp, olive brown, firm, damp, no odor.		
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-14

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
815			1		2 inches of asphalt at surface.		
					FILL, very fine to fine sand, some silt, trace gravel, orange brown, becoming less orange and darker with depth, less gravel with depth, loose, moist, no odor, to 15 inches.		
820			2		Silt (ML), trace clay, damp, olive brown, firm, damp, no odor.		
825			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-15

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1227					2 inches of asphalt at surface.		
					FILL, silty clay, trace gravel, brown, less gravel with depth, firm, moist, no odor, to 8 inches.		
1230			1				
					Silt (ML), trace clay, damp, olive brown, firm, damp, no odor, small wood chips.		
1233			2				
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-16

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1201					3 inches of asphalt, 1 inch of gravelly sand base.		
					Clayey Silt (ML), brown, becoming lighter with depth, firm, moist, micaceous, no odor, to 26 inches.		
1204			1				
					Similar to above		
1207			2				
					Silty Sand (SM), fine sand, olive brown, loose, moist, micaceous, no odor.		
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-17

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1253					1.5 inches of asphalt at surface.		
1257			1		FILL, silty fine to coarse sand, trace fine gravel, trace clay, brown, loose, moist, no odor, scattered small wood chips.		
1300			2				
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-18

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1240					3 inches of concrete.		
					Clayey Silt (ML), dark brown, becoming lighter with depth, firm, damp, micaceous, no odor, to 25 inches.		
1244			1				
					Similar to above		
1248			2				
					Silty Sand (SM), fine sand, light olive brown, loose, damp, micaceous, no odor.		
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-19

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1214					8 inches of concrete.		
1216			1		Silt (ML) with clay, brown, moist, firm, micaceous, no odor, to 16 inches.		
1220			2		Similar to above		
			3		Silty Sand (SM), fine sand, olive brown, loose, damp, micaceous, no odor.		
			4		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			5		Boring backfilled with cement/bentonite slurry, cement at surface.		
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-20

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
830					3 inches of asphalt at surface.		
835			1		FILL, very fine to fine sand, some silt, orange brown, becoming less orange and darker with depth, loose, moist, no odor, to 15 inches.		
838			2		Silt (ML), trace clay, damp, olive brown, firm, damp, no odor, charcoal bits.		
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-21

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
842					3 inches of asphalt at surface, 2 inches of gravelly sand base.		
					FILL, very fine to fine sand, some silt, orange brown, becoming less orange and darker with depth, loose, moist, no odor, to TD.		
846			1				
850			2				
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-22

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
854					5 inches of asphalt at surface.		
					FILL, very fine to fine sand, some silt, orange brown, becoming less orange and darker with depth, loose, moist, no odor, to 11 inches.		
857			1				
					Silt (ML), trace fine sand, moist, firm, olive brown, no odor.		
800			2				
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-23

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
910					3 inches of asphalt at surface.		
915			1		FILL, very fine to fine sand, some silt, orange brown, becoming less orange and darker with depth, loose, moist, no odor, to TD.		
920			2				
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-24

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
930					2 inches of asphalt at surface.		
					FILL, very fine to fine sand, some silt, orange brown, becoming less orange and darker with depth, loose, moist, no odor, to 7 inches.		
					Silt (ML), trace fine sand, moist, firm, olive brown, no odor.		
935			1				
940			2				
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-25

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
950			1		2 inches of asphalt at surface.		
					Silt (ML), trace fine sand, moist, firm, olive brown, no odor.		
955			2				
1000			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services





BORING No.: PB-26

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1010			1		3 inches of asphalt at surface.		
					Silt (ML), trace fine sand, moist, firm, olive brown, no odor, to TD.		
1020			2				
1025			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-27

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1414					5 inches of asphalt at surface.		
1416			1		FILL, fine to coarse sand, some silt, damp, loose, dark brown, no odor, to 18 inches.		
1418			2		Silty Sand (SM), fine sand, moist, loose, olive brown, no odor, rootlets, micaceous, to TD.		
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-28

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1330					6 inches of concrete at surface.		
					Silty Sand (SM), fine sand, moist, loose, olive brown, no odor, rootlets, micaceous, to TD.		
1335			1				
1340			2				
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, concrete at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-29

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1310					1.5 inches of asphalt at surface.		
1314			1		FILL, fine to coarse sand, trace clay, trace gravel, damp, loose, dark brown, no odor, to 10 inches.		
1318			2		Silty Sand (SM), very fine sand, trace fine gravel, damp, loose, olive brown, no odor, micaceous, to TD.		
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-30

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1500					7 inches of concrete at surface. One inch of gravelly sand base (no odor).		
					Silt (ML) with very fine sand, olive brown, lighter with depth, damp, firm, micaceous, no odor, to 25 inches.		
1510			1				
			2				
1520					Silty Sand (SM), fine sand, moist, loose, light olive brown, no odor, micaceous, to TD.		
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, concrete at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-31

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1440					6 inches of concrete at surface. 5 inches of gravelly sand base (no odor).		
			1		Silty Sand (SM), fine sand, moist, damp, light olive brown, no odor, micaceous, to TD.		
1445			2				
1450			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, concrete at surface.		
			5				
			6				



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

BORING LOG

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-32

DATE: March 27, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1421			1		3 inches of asphalt at surface.		
					FILL, fine to coarse sand, trace clay, trace gravel, damp, loose, dark brown, no odor, to 24 inches, asphalt at 24 inches.		
1425			2				
1430			3		Silty Sand (SM), very fine sand, trace fine gravel, damp, loose, olive brown, no odor, micaceous, to TD.		
			4		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			5		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-33

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1235			1		3 inches of asphalt at surface		
					FILL, fine to coarse sand, trace clay, trace gravel, damp, loose, dark brown, no odor, to 7 inches.		
					Silt (ML), with very fine sand, trace fine gravel, damp, firm, olive brown, no odor, micaceous, to TD.		
1240			2				
1240			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

BORING LOG

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-34

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1215					3 inches of asphalt at surface, 1 inch gravel sand base (no odor).		
			1		FILL, fine to coarse sand, trace clay, trace gravel, damp, loose, dark brown, no odor, to 13 inches.		
1220			2		Silt (ML), with very fine sand, trace fine gravel, moist, firm, olive brown, no odor, micaceous, to TD.		
1225			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-35

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1040					3 inches of asphalt at surface.		
					Silt (ML), with very fine sand, trace fine gravel, moist, firm, dark olive brown, no odor, micaceous, to TD.		
1045			1				
1050			2				
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-36

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

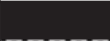





REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1115					3 inches of asphalt at surface, 3 inches of gravelly sand base (no odor).		
			1		Silt (ML), with very fine sand, trace fine gravel, moist, firm, olive brown, no odor, micaceous, layer of brick bits at 18 inches, to TD.		
1120			2				
1125			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1055			1		3 inches of asphalt at surface, 3 inches of gravelly sand base (no odor).		
							
							
1100			2		Silty Sand (SM), fine sand, moist, loose, olive brown, no odor, micaceous, to 17 inches.		
1105			3		Silt (ML), with very fine sand, trace clay, damp, firm, olive brown, no odor, micaceous, brick bits, to TD.		
			4		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			5		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-38

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1135					3 inches of asphalt at surface, 3 inches of gravelly sand base (no odor).		
			1		Silt (ML), with very fine sand, with clay, moist, firm, dark olive brown, no odor, micaceous, scattered brick bits, to TD.		
1140			2				
1145			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-39

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1250					3 inches of asphalt at surface.		
					Silty Sand (SM), fine to coarse sand, moist, loose, olive brown, no odor, micaceous, to 10 inches.		
1255			1		Silt (ML), with very fine sand, trace clay, damp, firm, olive brown, no odor, micaceous, to 16 inches.		
					Silt (ML), with very fine sand, trace clay, damp, firm, olive brown, no odor, micaceous, brick bits, to TD.		
1300			2				
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-40

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1155					3 inches of asphalt at surface, 3 inches of gravelly sand base (no odor).		
					Silt (ML), with very fine sand, with clay, moist, firm, dark olive brown, no odor, micaceous, rootlets, to TD.		
			1				
1200							
			2				
1205							
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			4				
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-41

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1330					3 inches of asphalt at surface.		
1335			1		Silt (ML), with very fine to coarse sand, moist, firm, dark olive brown, no odor, micaceous, bits of brick and other debris, less sand with depth, to TD.		
1340			2		trace clay at 26 inches.		
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-42

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1341			1		3 inches of asphalt at surface.		
					Silt (ML), with very fine to coarse sand, moist, firm, dark olive brown, no odor, micaceous, brick and asphalt at 10 inches, less sand with depth, increasing clay with depth, to TD.		
1343			2				
1347			3		Silty Clay (CL) at TD.		
			4		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			5		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			6				

BORING LOG



PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

















BORING No.: PB-43

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1313					3 inches of asphalt at surface.		
					Silt (ML), trace clay, moist, firm, dark olive brown, no odor, micaceous, to 10 inches.		
				1	Silty Sand (SM), fine sand, trace gravel, moist, loose, olive brown, no odor, micaceous, to TD.		
1316							
1320				2			
					Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
					Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
				3			
				4			
				5			
				6			

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-44

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1353					4 inches of asphalt at surface.		
1357			1		Silt (ML), with clay, trace gravel, moist, firm, olive brown, no odor, micaceous, decreasing clay with depth, to TD.		
1400			2				
			3		Boring advanced to 30 inches below surface grade. Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE
ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-45

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1408					6 inches of asphalt at surface.		
1411			1		Silt (ML), with clay, trace gravel, damp, firm, olive brown, no odor, micaceous, decreasing clay with depth, to TD.		
1415			2				
			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, black-dyed cement at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-46

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.

REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1423			1		6 inches of turf at surface (no pavement).		
					Silt (ML), with clay, trace gravel, moist, firm, olive brown, no odor, micaceous, decreasing clay with depth, to TD.		
1427			2				
1430			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, soil at surface.		
			5				
			6				

BORING LOG



PINNACLE

ENVIRONMENTAL TECHNOLOGIES

#2 Santa Maria, Foothill Ranch, CA
Tel: (949) 470-3691
Fax: (949) 595-0459

SITE: 92nd Street Elementary School

ADDRESS: 9211 South Grape Street

Los Angeles, California 90002

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Strongarm Env. Field Services

BORING No.: PB-47

DATE: March 28, 2018

GEOLOGIST: K. Thompson, P. G.
















REVIEWED: B. Malvey

ELEVATION: 118 feet MSL (est.)

Time	Blows	PID	Depth	Sample	DESCRIPTION	Graphic Log	Boring Backfill
1440			1		3 inches of turf at surface (no pavement).		
					Silt (ML), with clay, trace gravel, moist, firm, olive brown, no odor, micaceous, decreasing clay with depth, to TD.		
1443			2				
1445			3		Boring advanced to 30 inches below surface grade.		
					Saturated conditions not encountered.		
			4		Boring backfilled with cement/bentonite slurry, soil at surface.		
			5				
			6				

UNIFIED SOIL CLASSIFICATION SYSTEM

ASTM D 2487

MAJOR DIVISIONS			TYPICAL NAMES		
COARSE-GRAINED SOILS MORE THAN HALF IS LARGER THAN #200 SIEVE	GRAVEL MORE THAN HALF COARSE FRACTION IS LARGER THAN #4	GRAVELS WITH LITTLE OR NO FINES	GW		WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			G		POORLY-GRADED GRAVELS, GRAVEL-SAND
		GRAVELS WITH OVER 12% FINES	G		SILTY GRAVELS, GRAVEL-SAND-SILT
			GC		CLAYEY GRAVELS, GRAVEL-SAND-CLAY
	SAND MORE THAN HALF COARSE FRACTION IS SMALLER THAN #4	SANDS WITH LITTLE OR NO FINES	S		WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			S		POORLY-GRADED SANDS, GRAVELLY-SAND, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	S		SILTY SANDS, SAND-SILT
			S		CLAYEY SANDS, SAND-CLAY
FINE-GRAINED SOILS MORE THAN HALF IS SMALLER THAN #200 SIEVE	SILTS AND CLAYS (liquid limit is less than 50)		M		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR VERY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL		ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS (liquid limit is greater than 50)		MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT
			OH		ORGANIC CLAYS OF HIGH PLASTICITY, ORGANIC
	HIGHLY ORGANIC SOILS		Pt		PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

LEGEND



Sample



Soil Sample



Groundwater



Filter Pack



Bentonite



Concrete

USCS = Unified Soils Classification

CGI = Combustible Gas

PID = Photoionization

OVA = Organic Vapor

DESCRIPTORS

Trace = 1% - 5%

Some = 6% - 10%

With = 11% - 25%

-ly = 26% - 40%

And = >40%

SANDS

>50 blows = very

30 - 50 blows = dense

10 - 30 blows = medium

0 - 10 blows = loose

CLAST SIZE (Field Classification)

Gravel = > 0.25 inches

Sand = 0.003 - 0.25 inches

Silt = < 0.003 & not plastic

Clay = < 0.003 & plastic

SILTS & CLAYS

>30 blows = hard

15 - 30 blows = very stiff

8 - 15 blows = stiff

4 - 8 blows = firm

0 - 4 blows = soft



PINNACLE

APPENDIX E

MANIFESTS FOR DRUM DISPOSAL

Manifest

SOIL SAFE OF CA - TPST
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment: 8/29/18	Responsible for Payment:	Transport Truck #: 198	Facility #: A07	Approval Number: 49252	Load #: 1001
------------------------------	--------------------------	---------------------------	--------------------	---------------------------	-----------------

Generator's Name and Billing Address: L.A.U.S.D. - OEHS 333 S. BEAUDRY AVE., 21ST FLOOR LOS ANGELES, CA 90017	Generator's Phone #: 213-241-3199	
	Person to Contact:	
	FAX#:	Customer Account Number

Consultant's Name and Billing Address:	Consultant's Phone #:	
	Person to Contact:	
	FAX#:	Customer Account Number

Generation Site (Transport from): (name & address) 92ND STREET ELEMENTARY SCHOOL 9211 S. GRAPE STREET LOS ANGELES, CA 90002	Site Phone #:	
	Person to Contact:	
	FAX#:	

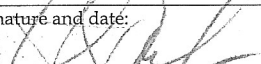
Designated Facility (Transport to): (name & address) SOIL SAFE 12328 HIBISCUS AVENUE ADELANTO, CA 92301	Facility Phone #: (800) 862-8001	
	Person to Contact: JOE PROVANSAL	
	FAX#: (760) 246-8004	

Transporter Name and Mailing Address: BELSHIRE 25971 TOWNE CENTRE DRIVE FOOTHILL RANCH, CA 92610 BESI: 297289	Transporter's Phone #: 949-460-5200	CAR000183913
	Person to Contact: LARRY MOOTHART	450647
	FAX#: 949-460-5210	Customer Account Number

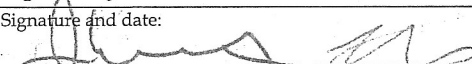
Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>	02 DM	Soil	38340	37100	1240
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>					.62

List any exception to items listed above: Scale Ticket # 1458021

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

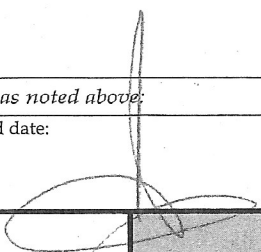
Print or Type Name: Generator <input type="checkbox"/> Consultant <input checked="" type="checkbox"/> Keith Thompson	Signature and date: 	Month Day Year 8/11/18
---	---	---------------------------

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Jose Fernandez	Signature and date: 	Month Day Year 08/14/18
---------------------------------------	---	----------------------------

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: J. PROVANSAL	Signature and date: 	8-29-18
-------------------------------------	---	---------

Please print or type.

TRANSPORTER COPY

NO. 743317

NON-HAZARDOUS WASTE DATA FORM

BEST #

297289

GENERATOR	Generator's Name and Mailing Address L.A.U.S.D. - OEHS 333 S. BEAUDRY AVE., 21ST FLOOR LOS ANGELES, CA 90017		Generator's Site Address (if different than mailing address) 92ND STREET ELEMENTARY SCHOOL 9211 S. GRAPE STREET LOS ANGELES, CA 90002	
	Generator's Phone: 213-241-3199			
	Container type removed from site: <input checked="" type="checkbox"/> Drums <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____		Container type transported to receiving facility: <input type="checkbox"/> Drums <input checked="" type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____	
	Quantity <u>01</u>		Quantity <u>1</u> Volume <u>15 gallons</u>	
TRANSPORTER	WASTE DESCRIPTION <u>NON-HAZARDOUS WATER</u>		GENERATING PROCESS <u>WELL PURGING / DECON WATER</u>	
	COMPONENTS OF WASTE PPM % 1. <u>WATER</u> <u>99-100%</u>		COMPONENTS OF WASTE PPM % 3. _____	
	2. <u>TPH</u> <u><1%</u>		4. _____	
	Waste Profile _____ PROPERTIES: pH <u>7-10</u> <input type="checkbox"/> SOLID <input checked="" type="checkbox"/> LIQUID <input type="checkbox"/> SLUDGE <input type="checkbox"/> SLURRY <input type="checkbox"/> OTHER _____			
RECEIVING FACILITY	HANDLING INSTRUCTIONS: _____			
	Generator Printed/Typed Name <u>Kath Thompson As Agent for LAUSD/OEHS</u>		Signature <u>[Signature]</u> Month <u>8</u> Day <u>14</u> Year <u>18</u>	
	The Generator certifies that the waste as described is 100% non-hazardous			
	Transporter 1 Company Name <u>BELSHIRE</u>		Phone# <u>949-460-5200</u>	
RECEIVING FACILITY	Transporter 1 Printed/Typed Name <u>Jose Fernandez</u>		Signature <u>[Signature]</u> Month <u>08</u> Day <u>14</u> Year <u>18</u>	
	Transporter Acknowledgment of Receipt of Materials			
	Transporter 2 Company Name <u>NIETO & SONS TRUCKING, INC.</u>		Phone# <u>714-990-8855</u>	
	Transporter 2 Printed/Typed Name <u>Michael Garcia</u>		Signature <u>[Signature]</u> Month <u>18</u> Day <u>30</u> Year <u>18</u>	
RECEIVING FACILITY	Transporter Acknowledgment of Receipt of Materials			
	Designated Facility Name and Site Address <u>DEMENNO KERDOON</u> <u>2000 N. ALAMEDA ST.</u> <u>COMPTON, CA 90222</u>		Phone# <u>310-537-7100</u>	
	Printed/Typed Name <u>SOPHIA P. SIVAY</u>		Signature <u>[Signature]</u> Month <u>18</u> Day <u>30</u> Year <u>18</u>	
	Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.			

Manifest

SOIL SAFE OF CA - TPST Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment: 1 / 1 Responsible for Payment: Transport Truck #: Facility #: A07 Approval Number: 49252 Load #: 10102

Generator's Name and Billing Address: L.A.U.S.D. - OEHS
ATTN: ANDREW MODUGNO
333 S. BEAUDRY AVE., 21ST FLOOR
LOS ANGELES, CA 90017

Generator's Phone #: 213-241-3199

Person to Contact:

FAX#:

Customer Account Number:

Consultant's Name and Billing Address:

Consultant's Phone #:

Person to Contact:

FAX#:

Customer Account Number:

Generation Site (Transport from): (name & address)
92ND STREET ELEMENTARY SCHOOL
9211 S. GRAPE STREET
LOS ANGELES, CA 90002

Site Phone #:

Person to Contact:

FAX#:

Designated Facility (Transport to): (name & address)
SOIL SAFE
12328 HIBISCUS AVENUE
ADELANTO, CA 92301

Facility Phone #: (800) 862-8001

Person to Contact: JOE PROVANSAL

FAX#: (760) 246-8004

Transporter Name and Mailing Address: BELSHIRE
25971 TOWNE CENTRE DRIVE
FOOTHILL RANCH, CA 92610
BESI: 301332

Transporter's Phone #: 949-460-5200

Person to Contact: LARRY MOOTHART

FAX#: 949-460-5210

Customer Account Number: CAR000183813
450647

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>	01 DM	SOIL	37650	37100	580
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>					29

List any exception to items listed above: Scale Ticket # 149494

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☒ KATHLEEN DSW Signature and date: Month 12 Day 21 Year 18

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Signature and date: Month 12 Day 21 Year 18

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: J. PROVANSAL Signature and date: 1-9-19

Generator and/or Consultant

Transporter

Recycling Facility

Please print or type.

TRANSPORTER COPY

APPENDIX F

PUBLIC NOTICE

Los Angeles Unified School District

Office of Environmental Health and Safety

VIVIAN EKCHIAN
Interim Superintendent of Schools

DIANE PAPPAS
Chief Executive Officer, District Operations & Digital Innovations

ROBERT LAUGHTON
Director, Environmental Health and Safety

CARLOS A. TORRES
Deputy Director, Environmental Health and Safety

March 1, 2018

TO: Neighbors and Community Members of the
92nd Street Elementary School

FROM: Los Angeles Unified School District
Office of Environmental Health and Safety

REGARDING: Environmental Assessment
92nd Street Elementary School, Los Angeles, California

The Los Angeles Unified School District (LAUSD) - Office of Environmental Health and Safety (OEHS) would like to provide you with advance notice for an Environmental Assessment (EA) that will be conducted within the boundaries of 92nd Street Elementary School, located at 9211 South Grape Street, Los Angeles, California 90002. The EA will focus on areas surrounding school facilities planned for renovation and modernization.

A licensed contractor, working on behalf of LAUSD, will perform the environmental investigation under the oversight of the LAUSD-OEHS. The environmental investigation will consist of soil sampling at locations on campus where existing buildings will be removed and new classrooms with support structures will be constructed. Soil will be analyzed for potential residual arsenic, lead-based paint, polychlorinated biphenyls (PCBs), and organochlorine pesticides (OCPs). If necessary, soil cleanup will be performed prior to construction activities to protect students, faculty, and staff.

Fieldwork is planned to be performed from March 26 through March 30, 2018, during the school spring break. Additional sampling, if needed, will be conducted on weekends or scheduled school breaks. Fieldwork is scheduled to be conducted between 7:00 am and 5:00 pm.

The results of the investigation will be submitted to LAUSD-OEHS in a report for review. The report will include an assessment of whether any of the above listed compounds are present in soil or building materials at concentrations that would require further assessment or mitigation, or if a response action will be necessary before the Site is cleared for construction activities. When the OEHS's review is complete, OEHS will issue a determination with regard to the assessment.

If you have any questions concerning the upcoming environmental investigation or other related activities for the proposed project, please contact Steven Morrill, LAUSD-OEHS, Site Assessment Project Manager at (213) 241-4672 (email at steven.morrill@lausd.net).

Distrito Escolar Unificado de Los Ángeles

Oficina de Salud y Seguridad Ambiental

VIVIAN EKCHIAN
Interim Superintendent of Schools

DIANE PAPPAS
Chief Executive Officer, District Operations & Digital Innovations

ROBERT LAUGHTON
Director, Environmental Health and Safety

CARLOS A. TORRES
Deputy Director, Environmental Health and Safety

1^{ero} de marzo de 2018

A: Vecinos y Miembros Comunitarios de la
Escuela Primaria 92nd Street

DE: Distrito Escolar Unificado de Los Ángeles
Oficina de Salud y Seguridad Ambiental

ASUNTO: Evaluación Ambiental
Escuela Primaria 92nd Street, Los Ángeles, California

La Oficina de Salud y Seguridad Ambiental (OEHS, por sus siglas en inglés) del Distrito Escolar Unificado de Los Ángeles (LAUSD) desea avisarle que se llevará a cabo una evaluación ambiental dentro de la Escuela Primaria 92nd Street. La escuela está ubicada en 9211 South Grape Street, Los Ángeles, California 90002. La evaluación ambiental se enfocará en áreas cerca de las instalaciones escolares en donde se planean actividades de renovación y modernización.

Un contratista licenciado, trabajando por parte del Distrito, realizará la investigación ambiental bajo la supervisión de la Oficina de Salud y Seguridad Ambiental. La investigación ambiental consistirá en la toma de muestras ambientales en áreas de la escuela donde se demolerán las estructuras existentes para la construcción de nuevas aulas de clases con nuevas estructuras de soporte. El suelo será analizado para identificar la presencia de arsénico, pintura a base de plomo, bifenilos policlorados y pesticidas organoclorados. Si es necesario, y para la protección de la salud de los estudiantes, maestros y del personal escolar, se realizará la limpieza ambiental del suelo antes de que inicien las actividades de construcción.

Se espera que los trabajos ambientales se realicen durante las vacaciones de primavera entre el 26 y 30 de marzo de 2018. Si es necesario tomar más muestras, los contratistas lo harán durante el fin de semana o cuando la escuela esté cerrada. Las horas de trabajo serán entre 7:00 am y 5:00 pm.

Los resultados de la investigación serán presentados al LAUSD-OEHS en un informe para su revisión. El informe incluirá una evaluación de la presencia de los compuestos mencionados anteriormente. La evaluación también identificará si los compuestos se encuentran en el suelo a niveles que requieran una evaluación adicional, mitigación o una "acción de respuesta" antes de que el área de estudio sea despejada para la construcción. Cuando finalice la revisión por parte de la Oficina de Salud y Seguridad Ambiental, el OEHS emitirá una conclusión con respecto a la evaluación ambiental.

Si tiene alguna pregunta acerca de estas actividades, por favor póngase en contacto con el gerente del proyecto Steven Morrill de la Oficina de Salud y Seguridad Ambiental del Distrito llamando al (213) 241-4672 (correo electrónico steven.morrill@lausd.net).